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Master of Science in Data Engineering • Jacobs University Bremen • Bremen ............................... 2
## Master's degree

### Master of Science in Data Engineering

Jacobs University Bremen • Bremen

### Overview

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<tr>
<th>Degree</th>
<th>Master of Science</th>
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<tr>
<td>Teaching language</td>
<td>English</td>
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<tr>
<td>Languages</td>
<td>Courses are held in English.</td>
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<tr>
<td>Programme duration</td>
<td>4 semesters</td>
</tr>
<tr>
<td>Beginning</td>
<td>Winter semester</td>
</tr>
<tr>
<td>Application deadline</td>
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|                        | • Application due by 1 June for international students (for those who require a visa to enter and study in Germany: for a list of countries please refer to our visa information page)
|                        | • Application due by 20 July for EU/EEA citizens and citizens of the following countries: United States of America (including the US Virgin Islands, American Samoa, Guam, Puerto Rico, and the Northern Mariana Islands), Andorra, Australia (including the Cocos [Keeling] Islands, Norfolk Island, Christmas Island), Brazil, Canada, El Salvador, Honduras, Israel, Japan, Monaco, New Zealand (including the Cook Islands, Niue, and Tokelau), San Marino, Republic of South Korea, Switzerland
|                        | If you are in your final year of study (high school senior) and have not yet completed your final examinations, you can still apply for any of the above deadlines. We will evaluate your application based on your grades to date. The admission decision will be communicated four to six weeks after the application deadline.
|                        | For more information, see our application information here. |
| Tuition fees per semester in EUR | 10,000 |
| Additional information on tuition fees | The tuition fees amount to 20,000 EUR for one academic year (nine months).
|                        | Please see: [https://www.jacobs-university.de/study/graduate/fees-finances](https://www.jacobs-university.de/study/graduate/fees-finances) |
| Combined Master's degree / PhD programme | No |
| Joint degree / double | No |
### Course Details

<table>
<thead>
<tr>
<th>Course organisation</th>
<th>Core components of the programme and Methods Area include the following modules:</th>
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<td></td>
<td>- The Big Data Challenge</td>
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<td></td>
<td>- Data Analytics</td>
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<td></td>
<td>- Big Databases and Cloud Services</td>
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<td></td>
<td>- Machine Learning</td>
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<td></td>
<td>- Data Visualisation and Image Processing</td>
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<td>- Data Acquisition Technologies and Sensor Networks</td>
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<td></td>
<td>- Modelling and Control of Dynamical Systems</td>
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<td></td>
<td>- Modern Signal Processing</td>
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<td>- Web Analytics</td>
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<td></td>
<td>- Network Approaches in Biology and Medicine</td>
</tr>
<tr>
<td></td>
<td>- Applied Dynamical Systems</td>
</tr>
</tbody>
</table>

**The Elective Area** is designed for students to integrate and strengthen their previously acquired knowledge and skills. Students can choose modules from four tracks:

- Computer Sciences
- Geo-Informatics
- Bioinformatics
- Business and Supply Chain Engineering

**The Discovery Area** features a project seminar on current topics and challenges in data engineering, which is followed by two advanced projects in data engineering in semesters.

**The Career Area** lets students acquire skills preparing them for a career as data engineers in industry.

- Language Skills
- Communications and Ethics
- Career Skills for Data Engineers

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**Types of assessment**

Written and oral examinations, term papers, presentations and project reports
### Integrated internships
The programme supports students in completing an internship in industry and research.

| Course-specific, integrated German language courses | No |
| Course-specific, integrated English language courses | No |

### Costs / Funding

| Tuition fees per semester in EUR | 10,000 |
| Additional information on tuition fees | The tuition fees amount to 20,000 EUR for one academic year (nine months). Please see: [https://www.jacobs-university.de/study/graduate/fees-finances](https://www.jacobs-university.de/study/graduate/fees-finances) |
| Semester contribution | Please see: [https://www.jacobs-university.de/study/graduate/fees-finances/graduate-tuition-fees](https://www.jacobs-university.de/study/graduate/fees-finances/graduate-tuition-fees) |
| Costs of living | The costs for housing in Bremen can be considered affordable compared to other German cities. Private rooms range from 300-500 EUR per month. Graduate students can optionally book attractive and affordable accommodations off-campus in the city of Bremen (room only). The fee for accommodation for one academic year (nine months) is 3,000 EUR. |
| Funding opportunities within the university | Yes |
| Description of the above-mentioned funding opportunities within the university | All applicants for the MSc Data Engineering are considered for merit-based scholarships of up to 12,000 EUR per year. |

### Requirements / Registration

#### Academic Admission Requirements
- Letter of motivation
- Curriculum vitae (CV)
- University transcript in English or German
- Bachelor’s degree certificate or equivalent (may be handed in later)
- Two letters of recommendation
- A certificate demonstrating English language proficiency (see below)

#### Language requirements
Language proficiency can be demonstrated by an English language proficiency test with a minimum score of 90 (TOEFL), 6.5 (IELTS), or 60 (Duolingo). Native speakers and applicants who completed their undergraduate studies in English may be exempt from this requirement.

#### Application deadline
- Application due by 1 June for international students (for those who require a visa to enter and study in Germany: for a list of countries please refer to our visa information page)
Application due by 20 July for EU/EEA citizens and citizens of the following countries:
United States of America (including the US Virgin Islands, American Samoa, Guam, Puerto Rico, and the Northern Mariana Islands), Andorra, Australia (including the Cocos [Keeling] Islands, Norfolk Island, Christmas Island), Brazil, Canada, El Salvador, Honduras, Israel, Japan, Monaco, New Zealand (including the Cook Islands, Niue, and Tokelau), San Marino, Republic of South Korea, Switzerland.

If you are in your final year of study (high school senior) and have not yet completed your final examinations, you can still apply for any of the above deadlines. We will evaluate your application based on your grades to date. The admission decision will be communicated four to six weeks after the application deadline.

For more information, see our application information here.

Submit application to https://www.jacobs-university.de/study/graduate/application-information

Services

Possibility of finding part-time employment
Student assistant jobs depending on availability.

Accommodation
Jacobs University is happy to provide its graduate students with attractive and affordable accommodation off-campus in the city of Bremen (room only). During the application process, students can decide whether they would like to use this service offered by our university or whether they would prefer to find an individual accommodation on their own.

Career advisory service
Jacobs University Career Services Center accompanies students through all stages of their career development in order to enable them to become responsible leaders of tomorrow.

Please see: https://www.jacobs-university.de/career-services

Specific specialist or non-specialist support for international students and doctoral candidates
- Welcome event
- Specialist counselling
- Cultural and linguistic preparation
Moises Daniel Garcia Rojas
MSc

“Jacobs University is a fantastic place to study. The internationality of staff and students help me to develop myself. I’m also surrounded by funny people with whom I can get along very well. I am studying Data Engineering. I think this is a degree with a promising future – whether it is in industry or research. The professors are eager to help me. They are really excited and committed to sharing their knowledge.”

At a glance: MSc Data Engineering

Students, alumni and professors share their experiences, recommendations and thoughts on the Data Engineering programme and the international diverse student body of Jacobs University.

more:
https://www.youtube.com/watch?v=0Hdf12wHo94

Jacobs University Bremen

Jacobs University is a private university located in Bremen and is one of the most international and intercultural universities in Germany. It attracts highly talented and open-minded students from all over the world. More than 1,466 students from over 111 nations currently live and study on our residential campus.

Jacobs University is a research-oriented, state-accredited university with a broad portfolio of pre-degree, undergraduate and graduate programmes from the natural sciences and engineering to the social sciences and economics. Extensive extracurricular activities support
and strengthen our students' personal development.

At Jacobs University, class sizes are small. For each student, a professor acts as a personal mentor and academic adviser. Students are actively involved in research starting in their first year of study. In research and teaching, our faculty members follow a transdisciplinary approach, addressing issues from multiple perspectives.

While the university has consistently achieved top marks over the last decade in Germany’s most comprehensive and detailed university ranking by the Center for Higher Education (CHE), it has also been listed by the renowned Times Higher Education (THE) magazine as one of the top 300 universities worldwide in 2018. THE Rankings is considered as one of the most widely observed university rankings. It is based on five major indicators: research, teaching, research impact, international orientation, and the volume of research income from industry.

University Location

Jacobs University is located in the northern district of the city-state of Bremen. Founded approx. 1,200 years ago, the Hanseatic city of Bremen is home to half a million people. It is the tenth largest city in Germany. Together with the nearby town of Bremerhaven, it represents the smallest state (“Bundesland”) in the country. Its most famous landmarks – the town hall and the Roland statue on the historical market square – have been recognised as a UNESCO World Heritage site. Bremen’s world-famous mascots are the Town Musicians from the Brothers Grimm fairytale. More than 30,000 students attend the two universities and four higher education colleges, which naturally has an effect on off-campus life. There are many restaurants, pubs, clubs, museums, theatres, and other venues for students to explore. Bremen is home to the Freimarkt, Germany’s oldest funfair, and its traditional Christmas market is a popular destination for locals and tourists alike. The "Schlachte" area along the Weser River and the "Viertel" quarter are known for their vibrant nightlife. Students can also use Bremen as an ideal base to explore Germany and Europe. The convenient "semester ticket" allows students to use public transport throughout the region, including the cities of Hanover and Hamburg. Bremen is also the only German city that has an international airport within ten minutes of the city centre.

Contact

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Computer Science & Electrical Engineering

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https://www.facebook.com/jacobs.university
https://twitter.com/jacobs_bremen
https://de.linkedin.com/school/jacobs-university-bremen/
https://www.instagram.com/jacobsuniversity/

Last update 05.12.2019 15:54:21
International Programmes in Germany - Database

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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.