



Deutscher Akademischer Austauschdienst  
German Academic Exchange Service



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# Master's degree



## Data Science (MSc, Elite Master's Programme)

Ludwig-Maximilians-Universität München • München

### Overview

Degree	MSc
Teaching language	<ul style="list-style-type: none"><li>English</li></ul>
Languages	All courses are in English.
Full-time / part-time	<ul style="list-style-type: none"><li>full-time</li></ul>
Programme duration	4 semesters
Beginning	Winter semester
Application deadline	1 June
Tuition fees per semester in EUR	None
Combined Master's degree / PhD programme	No
Joint degree / double degree programme	No

#### Description/content

The elite programme Data Science is an **interdisciplinary programme** that is carried out jointly by the **Department of Statistics** and the **Institute for Informatics** at LMU Munich. It is a modularised study programme:

The core module "Statistics" covers fundamental statistical concepts and methods. It consists of two courses, "Statistical Reasoning and Inference" and "Sampling and Experimental Design". The core module "Informatics" gives an overview of the steps of the knowledge discovery process and consists of two courses, "Knowledge Discovery and Data Mining" and "Big Data Management". The "Individual Modules" comprise, for example, lectures on statistical modelling, multivariate data analysis, advanced programming, and database systems in regression modelling and multivariate data analysis. The module "Human Computation and Analytics" covers those aspects of data science in which humans either produce data and process and analyse it with the help of algorithms or in which data is presented to humans by a computer system. Models such as decision trees, neural networks, support vector machines, and ensembles are introduced in the module "Predictive Modelling".

Technical, legal, and ethical issues of data security are key issues, especially when dealing with personal data or when planning experiments in Data Science. These topics are covered in the module "Data Ethics and Data Security". In the "Elective Modules", students may choose courses in specialised fields from the Master's courses in statistics, informatics, and computer linguistics. The module "Data Science Practical" plays a central role in the curriculum of the Master's programme.

Students will tackle real-world problems in cooperation with industrial partners. Summer schools, focused tutorials, and the DataFest are part of the module "Current Research in Data Science".

## Course Details

<b>Course organisation</b>	<p>The MSc Data Science is an interdisciplinary programme. It is carried out jointly by the Department of Statistics and the Institute for Informatics at Ludwig-Maximilians-Universität München. The curriculum is a modularised study programme. It comprises lectures, exercise classes, lab courses, and practicals. It also includes summer schools and focused tutorials.</p> <p>Semesters one to two: Core modules Statistics and Informatics; Individual Modules (Fundamentals of Data Science); Predictive Modelling; Human Computation and Analytics</p> <p>Semesters two to three: Data Ethics and Data Security; Elective Modules; Current Research in Data Science</p> <p>Semester three: "Data Science Practical"</p> <p>Semester four: Master's thesis and defence</p>
<b>International elements</b>	<ul style="list-style-type: none"><li>• International guest lecturers</li><li>• Projects with partners in Germany and abroad</li></ul>
<b>Integrated internships</b>	<p>In the module "Data Science Practical", students cooperate with industrial partners and research facilities in data analysis projects. This may include internships at the partner organisations.</p>
<b>Special promotion / funding of the programme</b>	<ul style="list-style-type: none"><li>• Other (e.g. state level)</li></ul>
<b>Course-specific, integrated German language courses</b>	No
<b>Course-specific, integrated English language courses</b>	No

## Costs / Funding

<b>Tuition fees per semester in EUR</b>	None
<b>Semester contribution</b>	124 EUR per semester
<b>Costs of living</b>	Living costs (including accommodation and health insurance) in Munich range from 800 to 1,000 EUR per month.
<b>Funding opportunities within the university</b>	No

# Requirements / Registration

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## Academic admission requirements

- Bachelor of Science (or equivalent) in statistics or informatics or related disciplines
- Excellent knowledge in computer science and statistics

Please visit the website for more detailed information: [www.datascience-munich.de](http://www.datascience-munich.de)

## Language requirements

Proficiency in English

Please visit our [website](#) for more information.

## Application deadline

1 June

## Submit application to

<https://efv-datascience.ifi.lmu.de/>

# Services

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## Accommodation

The International Office helps visiting academics, PhD students, and postdocs who are travelling to Munich for a set period of time to find accommodation.

For further information, please visit the following link:

<https://www.lmu.de/en/study/important-contacts/international-office/index.html>

Rooms in shared flats are popular on the private market and reasonably priced at 400-600 EUR per month if located in central parts of Munich.

# – Ludwig-Maximilians-Universität München –

[http://www.en.uni-muenchen.de/about\\_lmu/index.html](http://www.en.uni-muenchen.de/about_lmu/index.html)



## University location

Ludwig-Maximilians-Universität München (LMU Munich) is recognised as one of the top-ranked universities in Europe. Research and teaching at the university's 18 faculties are committed to the highest international standards of excellence. Students can choose from over 200 degree programmes ranging from the humanities and social sciences to economics and law as well as medicine and natural sciences. A growing number of Master's and doctoral programmes are taught in English.

Ludwig-Maximilians-Universität München forms part of a unique network of research institutions, foundations, and corporations in and around the city. Its campuses and a lively international student community constitute an integral part of the urban landscape. Home to approximately 1.5 million people, Munich is not only an important hub for higher education, research, technology, and the media. With its renowned museums, galleries, theatres, and festivals, the capital of Bavaria also ranks among the major European cultural centres. Its

proximity to the surrounding lakes and the Bavarian Alps adds to Munich's inimitable appeal.

## Contact

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🌐 Course website: <https://www.m-datascience.mathematik-informatik-statistik.uni-muenchen.de/index.html>

Last update 24.05.2024 18:06:09

# 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)

## Editor

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[www.gate-germany.de](http://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".

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



Federal Ministry  
of Education  
and Research