The Faculty at a Glance

The Faculty offers, in addition to a BA program that provides a solid computer science foundation, interdisciplinary programs that integrate aspects of visualistics, engineering or business sciences in the curricula: Computational Visualistics, Computer Systems in Engineering and Business Informatics.
All programs are accredited.

Degree Programms at the Faculty of Computer Science
- Computervisualistik (B. Sc. / M. Sc.)
- Informatik (B. Sc. / M. Sc.)
- Ingenieurinformatik (B. Sc. / M. Sc.)
- Wirtschaftsinformatik (B. Sc. / M. Sc.)
- **Data and Knowlegde Engineering (M. Sc.)**
- DigitalEngineering (M. Sc.)
- Lehramtsausbildung Informatik

→ Master Degree Data and Knowledge Engineering

The Master Data and Knowledge Engeneering (DKE) is your entrance to the fascinating field of Data Science, one of the most promising career areas for ambitious and dedicated young people. This degree teaches you how to turn passive data into exploitable knowledge. You will become familiar with data mining and machine learning, with data processing and analysis of conventional data, of databases, of text and multimedia collections. You will learn technologies for the design and development of advanced databases, knowledge bases and expert systems. You will train in using modelling instruments to represent data and to describe and store knowledge.

The Master DKE combines methods with applications. You can choose among several application areas for further specialization - business intelligence, life sciences, biotechnology and security, to name a few.

A centerpiece of the Master DKE curriculum is the teamproject: once you get familiar with the DKE methods, you can try them in practical projects. You will work in a small team of (usually three) students to solve a realistic application problem. You may join a team to design a component for a recommendation engine, a utility for personalized Web search, a method for predicting whether a treatment helps a patient, a function for querying a huge database and computing statistics on it. One teamproject you must do, but depending on your interests and skills, you may have more than one each semester.

Theme	Semester 1	Semester 2	Semester 3	Semester 4
Basics	30 CP			Master Thesis
Models		12 - 24 CP		
Methods I		12 - 24 CP		30 CP
Methods II		12 - 24 CP		
Applications		12 - 24 CP		
Summe CP	**30 CP**	**30 CP**	**30 CP**	**30 CP**

→ Career Perspectives

Data scientists are sought after in all sectors. Big industry players are eagerly hiring experts that can make knowledge out of data. Small companies, especially start-ups, but also traditional institutions like hospitals and the public sector are looking for people who Master the DKE methods and understand how to apply them.

The Master DKE prepares also for more traditional career paths, like IT-consulting and project management, with emphasis on data-intensive, knowledge-generating applications.

In the teamprojects and of course in the Master Thesis of your studies, you get also the chance to touch the borders of current state-of-the-art. If you find research fascinating, you will get from Maser DKE the foundations for further studies towards a PhD degree – to push the borders of Data Science one step further.

Master Theses are often made in cooperation with companies, ranging from automotive industry to web service providers, or with other external institutions, including public administration, hospitals and medical research centers. This gives you the chance of getting acquainted with the workflows and work subjects of a prospective employer. Teamprojects are also sometimes offered in cooperation with such external institutions, who provide e.g. real data for a data analytics task.

→ Prerequisites for the Master Data and Knowledge Engineering

The Master DKE is a four-semester degree. It requires a 6-semester bachelor as minimal prerequisite. You must bring adequate background in Computer Science, a good grade of your previous studies.

For the Master DKE, you do not need to have studied Computer Science: any recent degree in a relevant field is appropriate, as long as it includes at least 10 Computer Science courses (not simple labs).

You must have finished your degree with a good grade; Data Science is demanding. You must be proficient on either English or German; one language is sufficient for the M-DKE, although those speaking both languages have more choice among the courses.

For more information, visit us at:
http://www.fin.ovgu.de/mdke.html
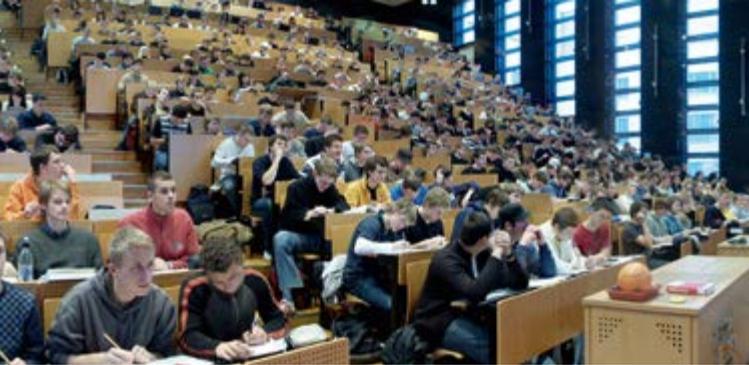
How to apply

The Master DKE enrolls both in the winter term and in the summer term. You will find the submission deadlines for each term under:

http://www.ovgu.de/en/Education.html

Applications must be submitted via uni-assist.

Further details and up-to-date information regarding the admission process will be provided on the web site mentioned above. This includes fill-in forms, the list of documents to submit, the general admission requirements and information regarding the application procedure itself.

Contact address:

Otto von Guericke University Magdeburg
Registrar's Office at the Faculty of Computer Science
Postfach 4120, 39016 Magdeburg
Building 29, Room 101
Tel. +49 391 67-58662
E-mail pa@cs.uni-magdeburg.de
www.fin.ovgu.de

THE UNIVERSITY CAMPUS

1   Campus-Service-Center
2   Faculty of Mathematics
4   Principal's Office
6   Department of Academic Affairs
9   Faculty of Electrical Engineering and Information Technology
10 Faculty of Mechanical Engineering
10 Faculty of Process and Systems Engineering
16 Faculty of Natural Sciences
22 Faculty of Economics and Management
29 Faculty of Computer Science
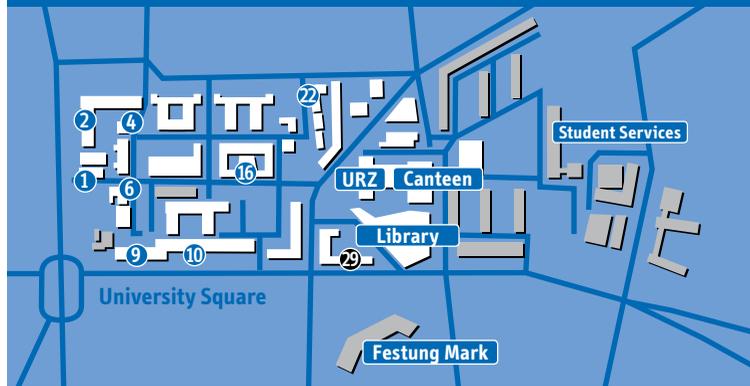
The main building of the Faculty for the Humanities, Social Sciences and Education is located in Zschokkestrasse 32.

FACULTY OF COMPUTER SCIENCE

Master

Data and Knowledge Engineering

INF — FACULTY OF COMPUTER SCIENCE

→ Otto von Guericke University Magdeburg

Otto von Guericke University Magdeburg is one of Germany's newest universities. Founded in 1993, it arose as a result of the merger of three renowned institutions of higher education in the city, namely the Technical University, the Teacher Training College and the Academy of Medicine. These traditional strands are still evident today in the University's focal areas, which are engineering and the natural sciences, information technology, economics & management and medicine. OVGU considers the humanities to be an essential part of a modern university with a distinctive profile. Thanks to its position at the heart of Germany and its history, OVGU is seen as a bridge between Western and Eastern Europe. This is particularly evident in the comprehensive internationalization of its teaching and research. The University's main areas of research - the neurosciences, dynamic systems / systems biology, the automotive industry and medical technology are interdisciplinary in nature and strengthened on a lasting basis by the neighbouring research institutes. Over 14,000 students, including over 1,600 international students, are enrolled in over 80 programmes across the nine faculties. The University offers state-of-the-art facilities, an excellent student/teacher ratio and practical, hands-on education.

Areas of Excellence in Research:

• Neuroscience
• Dynamic Systems
• Automotive

Otto von Guericke, Founder of Experimental Physics

Otto von Guericke was born in 1602 in Magdeburg and as the mayor of the city on the Elbe, he participated in the negotiations of the Peace of Westphalia at the end of the 30 Years War. He is reknowned by proving the existence of air pressure, above all through his famous experiment using the Magdeburg hemispheres. He is considered the founder of vacuum technology and inventor of the air pump and the barometer.