



Deutscher Akademischer Austauschdienst
German Academic Exchange Service



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Master's degree



MSc Integrative Neuroscience

Otto von Guericke University Magdeburg • Magdeburg



Overview

Degree	Master of Science
Teaching language	<ul style="list-style-type: none">English
Languages	English (100%)
Full-time / part-time	<ul style="list-style-type: none">full-time
Programme duration	4 semesters
Beginning	Winter semester
Application deadline	15 March
Tuition fees per semester in EUR	None
Combined Master's degree / PhD programme	No
Joint degree / double degree programme	No

Description/content

Integrative neuroscience considers neural components in their functional context. All levels of analysis are of interest: How do molecular and cellular components build functioning neurons and synapses? How do brain cells work together to form operational circuits? How do circuits jointly generate behaviour and cognition? How are individual brains shaped by their interaction with other brains and with the natural environment?

The integrative study of the nervous system involves newer developments such as functional brain imaging, application of molecular biology, and genetics and immunology as well as more traditional areas like neurophysiology, neuroanatomy, animal behaviour, or psychophysics. In addition, neural modelling and quantitative analyses are growing rapidly in importance. Accordingly, the programme introduces students to a wide variety of techniques from different disciplines.

The MSc Integrative Neuroscience programme opens almost the entire spectrum of advanced neuroscience research to its students. This includes animal behaviour and neurophysiology; human cognition and functional brain imaging; and numerous advanced techniques such as spectroscopy, optogenetics, two-photon microscopy, molecular dynamics, and more. It also includes related fields such as medical neuroscience, neuroprosthetics, neuro-inspired engineering, and neuroeconomics.

The MSc Integrative Neuroscience programme provides a broad foundation in the basic areas of neuroscience. This includes molecular and cellular neuroscience, systems and behavioural neuroscience, as well as theoretical and computational neuroscience. Students take core courses in all of these areas and choose from a range of advanced courses. They perform practical or laboratory exercises in all core areas and spend several weeks each in three research laboratories. The wide range of areas and requirements makes for an intensive and rewarding study experience.

Course Details

Course organisation	The first two semesters provide a broad foundation in molecular, cellular, systems, and theoretical neuroscience. Core lecture courses, which are obligatory for all students, help to balance out different academic backgrounds and ensure a uniform level of basic knowledge for all participants. Core lecture courses are complemented by optional tutorials.
A Diploma supplement will be issued	Yes
International elements	<ul style="list-style-type: none"> • International guest lecturers
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	Currently, the semester fee is 155.20 EUR. It covers services offered by the "Studentenwerk" (student union) and the student representatives. Enrolled students receive a semester ticket for free use of public transport, student discounts in the campus cafeteria, etc.
Costs of living	A minimum of 861 EUR per month must be budgeted for accommodation, cost of living, health insurance, books, and miscellaneous expenses. In comparison with many other towns and cities, the rental prices in Magdeburg are still relatively low. There are no tuition fees for the majority of programmes, and the semester fee already includes the cost of bus and tram travel within Magdeburg. The following link provides a fair picture of the cost of living in Magdeburg: Finance .
Funding opportunities within the university	No

Requirements / Registration

Academic admission requirements	<p>A first degree in a relevant field (completed or about to be completed)</p> <p>Because of the interdisciplinary nature of modern neuroscience, our students have diverse backgrounds in physical and/or biological sciences. Accordingly, a BSc degree in a relevant field (physics, biology, medicine, mathematics, experimental psychology, and others) from an internationally recognised university, is required for admission. Students with other degrees and with a sufficient number of courses in biology, physics, inorganic and organic chemistry, and calculus may be considered on an individual basis.</p> <p>In addition to a strong academic background, we expect future students to document (by past qualifications, activities, or achievements described in the “statement of purpose” and “curriculum vitae”):</p> <ul style="list-style-type: none">• a particular affinity for neuroscientific research• particular intellectual abilities• other important personal characteristics (relevant to a research career) <p>Selection is based on a combination of academic strength and these three criteria. In our experience, this approach increases the chances that an admitted candidate will succeed in the programme. In the past, 95% of all admitted students have graduated successfully (2008 to 2016).</p>
Language requirements	<p>Proof of English proficiency (except applicants from Australia, Canada, Ireland, New Zealand, Singapore, UK and USA).</p> <p>Several organisations offer tests of English proficiency:</p> <p>www.de.toefl.eu, www.ets.org/toefl, www.ielts.org/, www.cambridgeesol.org/</p> <p>The minimum requirements are: 79 points (TOEFL iBT), 213 points (TOEFL CBT), 6.5 points (IELTS), grade C (ESOL), UNicert III & IV.</p>
Application deadline	15 March
Submit application to	<p>Otto-von-Guericke-Universität Magdeburg c/o uni-assist e.V. 11507 Berlin Germany</p> <p>www.uni-assist.de</p>

Services

Possibility of finding part-time employment	<p>It is possible to find a part-time job as a research or student assistant at one of the faculties or in the university administration (maximum: 80 hours per month). Other opportunities are student jobs at different companies, restaurants, and shops. Information on how to find a job can be found on our website: Career Service.</p>
Accommodation	<p>The "Studentenwerk" (student union) in Magdeburg manages the on-campus halls of residence (mostly one- to four-room apartments). Currently, the monthly rent ranges from 200 to 370 EUR per</p>

room (approx. 12 to 35 square meters), depending on the size and furnishing. Rooms in the halls of residence are limited in number. The accommodation application can be found on the website of the Studentenwerk.

The Studentenwerk assists all new students in finding adequate accommodation, either on or off campus. Private accommodation is available on the Magdeburg accommodation market. However, fully furnished units are in somewhat short supply.

Support for international students and doctoral candidates

- Welcome event
- Buddy programme
- Specialist counselling
- Cultural and linguistic preparation

— Otto von Guericke University Magdeburg —



Otto von Guericke University Magdeburg (OVGU) was founded in 1993 and is one of Germany's youngest universities. It was formed by a merger of the existing technical university, the teacher training college, and the medical school. The university now comprises nine faculties and about 14,000 students and is becoming increasingly more important as a centre for education and research. It plays an important role in the regional capital of Magdeburg, which is developing into a centre for business, scholarship, and culture. The university is a member of many organisations and committees. It is named after Otto von Guericke (1602-1686), Magdeburg's famous citizen, whose pioneering research into the vacuum brought him renown well beyond Germany's borders. The university aspires to teach and research in the tradition of this great scientist, philosopher, and engineer and to continue with his humanist work.

At the Otto von Guericke University Magdeburg, students can choose from more than 90 degree courses in various areas of study and specialisation. In addition to these, a range of postgraduate courses are offered. There are also many possibilities to combine different subjects across faculties. The conditions for students are ideal, with modern laboratories, experimental workshops, and clinics equipped with high-performance computers and an excellent staff-student ratio. The offer of a sound, thorough education, combining a high level of theoretical expertise with practical experience, makes Magdeburg an attractive choice.

In recent years, research at the university has gone through a decisive change, from applied research to innovative, fundamental research. Among the many areas represented, the neurosciences, immunology, non-linear systems, new materials, processes and products, computational visualistics, social transformation, communication, and culture deserve a special mention. The university hopes to make a significant contribution to economic and social development in Magdeburg and the surrounding area through its research. Equally, disciplines such as humanities, economics, and management, which have been established more recently at the university, have already made their mark on our research profile. Special emphasis is placed on close cooperation between teaching staff and students.

Magdeburg also attracts students because it offers accommodation with either a single bed or twin beds in its halls of residence.

[Take a virtual trip through our international campus!](#)

University location

As the capital of the federal state of Saxony-Anhalt, Magdeburg is the seat of the state parliament and administration. The town is more than 1,200 years old and has about 234,000 inhabitants. Its excellent location on the River Elbe and its proximity to Berlin, Hanover, and Leipzig have proven to be a significant asset to the city. In the 19th century, the town developed into an important industrial and trade centre. Nowadays, another quite distinctive feature of Magdeburg is its considerable research and innovation potential at the university, the Max Planck and Fraunhofer research institutes, and the university of applied sciences, which are all located in close proximity to each other. Magdeburg offers an extensive park and garden landscape, a rich cultural and sports life, and an ideal atmosphere for being a student. Please visit the website: www.magdeburg.de.

Contact

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🌐 Course website: <https://www.neuroscience-magdeburg.de>

📘 <http://www.facebook.com/OVGU.Magdeburg>
🐦 <http://www.twitter.com/OVGUpresse>
🌐 <https://www.linkedin.com/school/otto-von-guericke-university-magdeburg/>
📷 http://www.instagram.com/uni_magdeburg
📺 <https://www.youtube.com/channel/UCX7sej01ntgujN3NilAUkUw>

Last update 05.05.2024 01:05:32

International Programmes in Germany - Database

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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.



Federal Ministry
of Education
and Research