



Deutscher Akademischer Austauschdienst  
German Academic Exchange Service



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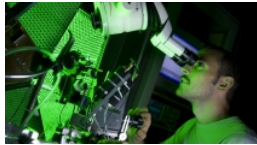
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# Master's degree



## Behaviour: From Neural Mechanisms to Evolution, MSc

Bielefeld University • Bielefeld



## Overview

Degree	Master of Science
Teaching language	<ul style="list-style-type: none"><li>English</li></ul>
Languages	Courses are held in English (100%). The Master's thesis has to be written in English.
Programme duration	4 semesters
Beginning	Winter semester
Application deadline	<p>Applications can be submitted between <b>1 June and 15 July</b> of every year via the application portal of the university, <a href="#">HisInOne</a>.</p> <p>International students are particularly encouraged to apply early.</p> <p>The admission procedure has two steps, an eligibility check ("Zugangsprüfung") and a ranking procedure for limited admission of 14 students per year ("Zulassung").</p>
Tuition fees per semester in EUR	None
Combined Master's degree / PhD programme	No
Joint degree / double degree programme	No
Description/content	<p>Brains are among the most complex systems in nature. They control perception, cognition and eventually the behaviour of animals and humans. Understanding the mechanisms that allow animals and humans to behave adaptively in complex environments is one of the most fascinating, but also most challenging tasks in science.</p> <p>The graduate programme "Behaviour: From Neural Mechanisms to Evolution" provides the relevant interdisciplinary scientific training for a comprehensive education. It introduces concepts, fundamental experimental techniques, and theoretical approaches that are required to perform research at the frontiers of this ambitious scientific field.</p> <p>The study programme aims to provide a comprehensive understanding of the fundamental</p>

principles underlying autonomous adaptive behaviour in animals and humans. It bridges the gap from neurophysiology to behavioural ecology. This goal is reached by relating two basic aspects that are usually treated separately.

- Computational Aspect: Behaviour is the result of computations performed by the nervous system of the organism at all relevant levels of complexity. These comprise the cellular and network level as well as the cognitive and behavioural performance of the entire system.
- Evolutionary Aspect: Brain morphology and function as well as the innate and learnt behaviours of animals and humans emerge from the developmental and everyday interactions of the organism with its environment. They have been shaped by selection in the course of evolution.

As a distinguishing characteristic, this study programme focuses on both computational and evolutionary explanations of behaviour and highlights their mutual relationship.

Although the interdisciplinary study programme is centred in the Faculty of Biology, a selection of curricular modules may also be selected from other fields such as psychology, computer science, robotics or linguistics. Some of the groups involved in the graduate programme are affiliated with the Centre for Cognitive Interaction Technology (<http://www.cit-ec.de>).

## Course Details

### Course organisation

Throughout the first year, basic concepts and current topics of mechanisms and evolution of brain and behaviour are taught in a comprehensive study programme. This combines both seminars and lectures with lab courses and small scientific projects. During the first year, emphasis is put on individual tutoring and intensive training in small groups.

Semesters 1 and 2:

- Module A "Probing Behaviour" (10 ECTS)
- Module B "Neural Mechanisms of Behaviour" (10 ECTS)
- Module C "Control of Behaviour" (10 ECTS)
- Module D "Perception and Action" (10 ECTS)
- Module E "Evolution of Behaviour" (10 ECTS)
- Module F "Function of Behaviour" (10 ECTS)

In the second year, students carry out independent projects in two of the participating research groups. These projects will eventually lead to the six-month Master's thesis project.

Semesters 3 and 4:

- Supplementary module (10 ECTS)
- Two research modules (A, B): Small research projects in preparation for the Master's thesis project (10 ECTS each)
- Participation in a weekly seminar series

It is recommended that at least the supplementary module will be done in a research group outside Germany.

Thesis: The Master's thesis project comprises original and independent research. Research projects are accompanied by training in scientific writing and oral presentation skills. The Master's thesis will be written in the format of international scientific journals (30 ECTS).

» [PDF Download](#)

### A Diploma supplement will be issued

Yes

### International elements

- International guest lecturers
- Integrated/optional study abroad unit(s)

Integrated/optional study abroad unit(s)	Optional study abroad units: Students are encouraged to use the supplementary module (and potentially one of the research modules) to do a project in a cooperating international research institution.
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	<p>Since Bielefeld University does not charge tuition fees, every student only has to pay a social fee. The <b>social fee</b> includes the contribution to the <b>social ticket</b> for free public transport in the city and area of Bielefeld and on regional trains and buses in North-Rhine Westphalia for the whole semester.</p> <p>The current semester contribution is approximately 300 EUR.</p>
Costs of living	<p>Costs for studying in Germany are relatively high due to the living expenses.</p> <ul style="list-style-type: none"> <li>• Rent in a room in student halls of residence or a private student hall, in a room or flat comes to approx. 280 EUR per month.</li> <li>• The expected costs for student health insurance and other medical fees are about 80 EUR per month.</li> <li>• Depending on your lifestyle, you might spend about 150 EUR on food each month.</li> <li>• Altogether, monthly costs for food, clothes, leisure activities, social fees, travel expenses, telephone bills, and the other mentioned expenses add up to approx. 850 EUR.</li> </ul> <p>There are several ways of cutting expenses in Bielefeld. For example, it is possible to rent a room in a student residence for about 230 EUR, and a meal at the student canteen (Mensa) costs only about 2.60 EUR.</p>
Funding opportunities within the university	No

## Requirements / Registration

Academic admission requirements	BSc degree in biology, neuroscience, psychology, computer science, or any related subject
Language requirements	<p>Fluency in English is required. Evidence of English language skills: e.g. English as first language, first degree obtained at an English-speaking institution, TOEFL test (paper-based: TOEFL ITP® with a score record of at least 543; Internet-based: TOEFL iBT® with a score record of at least 87), IELTS (International English Language Testing System) with an overall band score of at least 5.5 or any other equivalent test (level B2 according to the Common European Framework of Reference for Languages)</p> <p>International students: working knowledge of German is necessary for daily private activities, German courses are strongly recommended.</p>

### Application deadline

Applications can be submitted between **1 June and 15 July** of every year via the application portal of the university, [HisInOne](#).

International students are particularly encouraged to apply early.

The admission procedure has two steps, an eligibility check ("Zugangsprüfung") and a ranking procedure for limited admission of 14 students per year ("Zulassung").

### Submit application to

You are able to apply online at Bielefeld University within the [application deadlines for international applicants](#).

➔ [Go to the Application Portal!](#)

## Services

### Possibility of finding part-time employment

Basically, with your residence permit (stamp in your passport), you will receive a work permit for 120 work days per year. This allows you to work 120 full days (eight hours per day) or 240 half days (up to four hours per day). This condition must be noted expressly in the passport by the authorities.

### Accommodation

Please try to secure accommodation in Bielefeld as early as possible. In Bielefeld, a broad range of accommodation options can be found at affordable prices. Students residences are run by the public "Studierendenwerk" or private organisations, and shared flats are very common.

Offers of accommodation can be found online by following the links below:

- [Studierendenwerk Bielefeld](#) (dormitories)
- [WG-gesucht.de](#) (private shared accommodation)

The International Office supports students who are searching for accommodation.

### Career advisory service

Career planning is a step-by-step development and clarification process that requires individual strategies. Based on a strengths- and resource-oriented approach, we support you in developing your own career prospects.

Depending on your needs, our Career Service at Bielefeld University will accompany you throughout the entire process or in individual steps.

<https://www.uni-bielefeld.de/themen/career-service>

### Support for international students and doctoral candidates

- Welcome event
- Buddy programme
- Accompanying programme
- Cultural and linguistic preparation
- Visa matters
- Help with finding accommodation
- Support with registration procedures
- Specialist counselling

### General services and support for international students

At PunktUm, our German Learning Centre, we offer a comprehensive range of academic support programmes that are designed to meet the needs of international members of the Bielefeld

and doctoral candidates

University. These include the Academic Mentoring Programme for Master's students, the Peer Mentoring Programme for Bachelor's students, and semester-long workshops designed to help all students and researchers with academic writing. We also offer individual consultations on academic writing in German as a Foreign Language (DaF) or German as a Second Language (DaZ).

The International Office provides an orientation programme for all international members of Bielefeld University, including degree seekers (BA and MA), double degree students, Erasmus/cooperation students, doctoral students, scholars, interns, and refugees/preparing applicants. Example of activities include Café International, campus tour, introductions to digital services and administrative procedures.

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## Bielefeld University

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As a university internationally regarded for its top-level research and innovative teaching concepts, Bielefeld University makes a significant contribution to a progressive and participatory knowledge society. It is an attractive, family-friendly place to work and study and is characterised by an open communication culture, lived interdisciplinarity, diversity and freedom for personal development.

Bielefeld University was founded in 1969 with an explicit research assignment and a mission to provide high-quality research-oriented teaching. With more than 24,000 students, the University encompasses 14 faculties, covering a broad range of disciplines in the humanities, natural sciences, social sciences and technology. In addition, a medical faculty is in the process of establishment – a decisive step for Bielefeld University on its way to becoming a "Volluniversität" (full university) that offers a comprehensive range of disciplines.



### University location

With around 340,000 inhabitants and an area of 258 square kilometres, Bielefeld is one of the 20 largest cities in Germany and the economic and cultural metropolis of East Westphalia-Lippe, located in the heart of Germany. Globally operating companies, such as Dr. Oetker, Miele, and Bertelsmann, have their headquarters in the city of Bielefeld. Historical industrial planning and building has left a lasting impression on the city to this very day. This is complemented by modern architecture and a wealth of intentionally created green areas. Over 60% of the city consists of green areas, parks, and woods. The city of Bielefeld is varied and colourful. Culture and sports fans will find a wide range of tempting offers here. These include an independent theatre culture, cabaret, and local concerts as well as large international cultural events. The heights of the Teutoburg Forest stretch from the south-east to the north-west of the town, offering hundreds of kilometres of walking trails. As one of the safest metropolises in Germany, Bielefeld offers a high quality of life.

# Contact

## Bielefeld University

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🌐 Course website: <https://www.uni-bielefeld.de/fakultaeten/biologie/studium/studieninteressierte/master/bfnme/>

📘 <https://de-de.facebook.com/BielefeldUniversity/>

🐦 <https://twitter.com/unibielefeld>

📷 <https://www.instagram.com/bielefelduniversity>

📺 <https://www.youtube.com/user/BielefeldUniversity>

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# 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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## GATE-Germany

Consortium for International Higher Education Marketing  
[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".

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