



## INTERNATIONAL PROGRAMMES

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Master's degree	2
MSc Biochemistry • Freie Universität Berlin • Berlin	2

# Master's degree



## Overview

Degree	Master of Science Biochemistry
Teaching language	• English
Languages	Courses are completely held in English.
Full-time / part-time	• full-time
Programme duration	4 semesters
Beginning	Winter and summer semester
Application deadline	Application and registration period: 15 April – 31 May (for the winter semester) and 1 December – 15 January (for the summer semester)
Tuition fees per semester in EUR	None
Combined Master's degree / PhD programme	No
Joint degree / double degree programme	No
Description/content	The international Master's programme Biochemistry at Freie Universität Berlin (FU Berlin) is offered to students from Germany and abroad, and it is entirely held in English. Capitalising on the city's unique research landscape consisting of several universities and of research institutes from the Max Planck, Helmholtz and Leibniz Societies, we offer a vigorous biochemical training in all modern areas of biochemistry. The programme offers an excellent theoretical and practical training that thoroughly prepares graduates for a further career in the life sciences. A Bachelor's degree in biochemistry or a related field is a prerequisite to enter the Master's programme. Applicants should demonstrate a sufficient level of theoretical and practical training. The programme includes a basic lecture series covering major aspects of current biochemical research from a broad range of fields. The practical course work comprises methods modules that last two to four weeks. These modules convey in-depth knowledge of particular methods in the areas of structural biology, molecular biology or molecular medicine. Further on, individual nine-week projects are performed in groups within the department or in one of the many affiliated laboratories. Many students perform one of these lab rotations abroad to gain international research experience. Scholarships are available to support and encourage such projects. A Master's thesis of six months performed in a selected research group completes the studies.

## **Course Details**

### Course organisation

### Lecture series "Advanced Biochemistry" (10 credit points)

The major categories of the lecture series (RNA biochemistry, protein biochemistry, membrane biochemistry, signal transduction) are represented by the members of the biochemistry faculty of Freie Universität Berlin and several associated members from major research hubs in Berlin, such as the Leibniz Institute of Molecular Pharmacology, the Max Delbrück Center for Molecular Medicine or the Charité. The curriculum comprises areas of ongoing research such as protein dynamics, post-transcriptional regulation of mRNA expression, membrane remodelling with a focus on neurobiology and signal transduction in the field of chronobiology, immunobiology or bone morphogenesis.

In addition to the mandatory basic lectures, a number of specialised lecture series are offered as elective courses (see below).

### Methods courses (5 credit points per two-week course, three courses required)

These courses are designed as hands-on practical experience, giving students the opportunity to gain advanced technical skills. These courses are full-time assignments with a high supervisor-to-student ratio (typically one to three tutors for six students). Practical work is flanked by 45-90 minute/day seminars that impart further aspects of the technology. These seminars also require the active participation of students, typically in form of a journal club or discussion of results at the end of the respective course. Here are some of the courses currently being offered (examples, more: https://www.bcp.fu-berlin.de/en/chemie/biochemie/master/curriculum/)

- Biomolecular / Advanced X-ray crystallography
- NMR spectroscopy
- Quantitative fluorescence microscopy
- Bioanalytical mass spectrometry and proteomic analysis
- Alternative splicing and protein-RNA interaction
- Production and biophysical analysis of selected membrane proteins
- Functional Genomics with CRISPR

## Lab rotations with examination (15 credit points, three appointments required)

Here, students are offered the unique opportunity to perform extended projects in a laboratory of their choice amongst the FU-affiliated and approved institutions in Berlin, Germany or internationally. At the end of these rotations, the results are presented in a 15-minute talk followed by an oral examination of 30 minutes.

## Lab rotations without examination (5-10 credit points)

These are individual research projects of varying length. They can be performed in preparation of a Master's thesis, as industry projects or in the form of an elective course.

## Elective courses (20 credit points)

This part of the curriculum can be filled with methods modules, lab rotations or practical work in a research institute of the student's choice. Half of the credit points require to be performed in the area of biochemistry, while the other half can be obtained in other areas (soft skill courses, scientific writing, teaching, etc.)

## Master's thesis

Six-month research projects complete the Master's studies.

A Diploma supplement will be issued

Yes

### International elements

• Projects with partners in Germany and abroad

Description of other international elements	Students have the flexibility to do lab rotations and complete their Master's thesis abroad. This is strongly encouraged by the faculty to enable students to gain international research experience. Many students take advantage of this opportunity, which frequently serves as the first step towards pursuing a PhD programme abroad.
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	In total, the semester contribution amounts to 304.40 EUR. It includes a fee of 181.40 EUR for the transportation ticket contribution. This allows you to use public transportation in Berlin for free. Other costs covered by the semester contribution include a 50 EUR enrolment fee, a 63 EUR semester contribution to the student support service ("studierendenWERK Berlin"), and a 10 EUR contribution to the student union.
Costs of living	Compared to other European countries, the cost of living in Germany is quite reasonable. However, the cost of living has also risen somewhat in Germany in recent years. The prices for food, accommodation, clothing, cultural events, etc. are slightly above the EU average. You will need around 950 to 1,200 EUR each month to cover your living expenses. The biggest expense is monthly rent, which is between 400 and 700 EUR in Berlin.
Funding opportunities within the university	Yes
Description of the above- mentioned funding opportunities within the university	The <b>Deutschlandstipendium scholarship</b> enables students at Freie Universität Berlin (FU Berlin) from all nations and walks of life to fully concentrate on their studies. The programme supports talented students with 300 EUR per month. To apply, you must already be enrolled and be within the standard period of time given to complete your degree during the funding period, or you must have a letter of acceptance to start a degree programme at Freie Universität Berlin.

## Requirements / Registration

Academic admission requirements	Bachelor's degree in biochemistry or an equivalent degree with credits in biochemistry that correspond to the Bachelor's programme in biochemistry at the Freie Universität Berlin
Language requirements	Applicants must demonstrate proof of sufficient German (DSH2) or English skills (B2 CEFR).
Application deadline	Application and registration period: 15 April – 31 May (for the winter semester) and 1 December – 15 January (for the summer semester)

Submit application to

Freie Universität Berlin c/o uni-assist e.V. 11507 Berlin Germany

Link: uni-assist

## **Services**

## Possibility of finding parttime employment

There are many ways of earning money while you study, for example as waiting staff, academic assistants, or private tutors. Knowledge of German will improve your chances of finding a part-time job, but it isn't necessarily required. However, it is important to be aware of the legal regulations.

The student support service at the university, called studierendenWERK Berlin, and the local representative of the "Bundesagentur für Arbeit" (Federal Employment Agency) can provide information about jobs for students. When searching for a job, look at online job boards, ads in local newspapers, and notice boards on campus.

#### Accommodation

You have the option to stay in a public/private student dormitory or in a private (shared) apartment. Student dormitories are not administrated by the university itself, so Freie Universität Berlin does not have any on-campus housing. However, it works together with "studierendenWERK Berlin" regarding student accommodation.

If you do not wish to stay in a student dormitory, you can try to find a room or an apartment on the private housing market. Many students in Berlin live in shared apartments ("WGs"). You can find these offers online (e.g. WG-gesucht or Kleinanzeigen) or on notice boards on campus.

Available rooms/apartments near the university are rare. Therefore, students mostly commute from other parts of the city. The commute via public transportation usually takes between 30 minutes and an hour, which is considered a normal travel time in Berlin due to the city's size.

## Career advisory service

The Career Service of Freie Universität Berlin aims to support international students at Freie Universität by providing information, advice, and events related to career planning, internships, and job applications.

# Support for international students and doctoral candidates

Welcome event

## General services and support for international students and doctoral candidates

The International Student Support team at FU Berlin regularly offers information events that include Q&A sessions. While personal office hours are not available due to our team size, students can contact Info-Service Study for general inquiries, or seek assistance from the General Academic Advisory Service or Psychological Counselling for more complex concerns. Additionally, the team continually enhances its expertise in international affairs, thereby contributing to FU Berlin's internationalisation process.

## **Contact**

## Freie Universität Berlin

Fachbereich Biologie, Chemie, Pharmazie Institut für Chemie und Biochemie

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□ admission@biochemie.fu-berlin.de

Course website: https://www.bcp.fu-berlin.de/en/chemie/biochemie/master/

- f https://www.facebook.com/freieuniversitaetberlin/
- https://twitter.com/fu\_berlin
- in https://www.linkedin.com/school/freie-universitat-berlin/
- https://www.instagram.com/fu\_berlin/
- https://www.youtube.com/c/FreieUniversitaetBerlin

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## International Programmes in Germany - Database

www.daad.de/international-programmes www.daad.de/sommerkurse

### Editor

DAAD - Deutscher Akademischer Austauschdienst e.V. German Academic Exchange Service Section K23 – Information on Studying in Germany Kennedyallee 50 D-53175 Bonn www.daad.de

### **GATE-Germany**

Consortium for International Higher Education Marketing www.gate-germany.de

### Disclaimer

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