# Molecular and Cellular Biosciences

# <u>Master</u>

Master of Science 120
International master's programme CP



Effective: January 2024 | Photo: MLU / Marco Fischer



## Programme at a glance

Faculty of Natural Sciences 1 - Biosciences

**Institute** of Biology

Programme type: Master's programme with 120 CP

Degree: Master of Science (MSc)

Standard period of study: 4 semesters

Start: Winter semester and summer semester

Language of instruction and examinations: English

Subject-specific requirements: yes

## **Programme objectives**

The international master's programme *Molecular and Cellular Biosciences* aims at providing a broad theoretical and methodological understanding of cellular functions at the molecular level, enabling students to acquire a comprehensive knowledge in one or more areas of molecular and cellular biology.

The study programme is designed to broaden and develop the students' ability to work systematically and scientifically, and to train logic-based analytical thinking in order to enable them to carry out scientific research independently in the molecular biosciences.

Students will acquire knowledge in recognizing and identifying scientific problems, developing structured approaches to address these scientific problems, to solve key questions experimentally and ultimately expand our knowledge of the subject area. In a collaborative and problem-oriented manner, students will be trained in working as a team with colleagues from different disciplines and to apply basic knowledge in a practical way.

Molecular and Cellular Biosciences is strongly research-oriented and both courses and examinations are held in English.

## **Career opportunities**

The MSc Molecular and Cellular Biosciences qualifies for positions in the following fields:

university research | PhD positions | research-oriented institutes | industry | production | administration | diagnostics | public service

#### **Admission requirements**

Applicants for the international master's programme must

- → hold a bachelor's degree or equivalent degree in a bioscience-oriented study programme,
- → pass the programme-specific test and
- → prove good knowledge of written and spoken English.

The bachelor's degree or equivalent degree must have been obtained in a bioscience-oriented or comparable degree programme in which knowledge totalling **55 credit points** (CP) was acquired in at least four areas belonging to biochemistry, molecular biology, physiology, cell biology, genetics or microbiology.

In addition, applicants must complete an online test containing tasks from the fields of biochemistry, molecular biology, physiology, cell biology, genetics and microbiology. Further information on registration, dates and procedures is published on the website of the Institute of Biology.

Applicants must also prove their English language proficiency by submitting an (inter)nationally recognised language certificate attesting upper B2 level according to the Common European Framework of Reference for Languages (CEFR) with the following results:

- → TOEFL iBT (min. 90/120), TOEFL CBT (min. 35/300), or TOEFL PBT (min. 580/677),
- → IELTS (min. band 6.5),
- → Cambridge Certificate (min. 173/230),
- → UNIcert II,
- → other (inter)nationally recognised language certificate with at least 75% of the maximum score achievable in the respective certificate.

However, proof of language proficiency is not required if the first degree was obtained in a study programme taught in English.

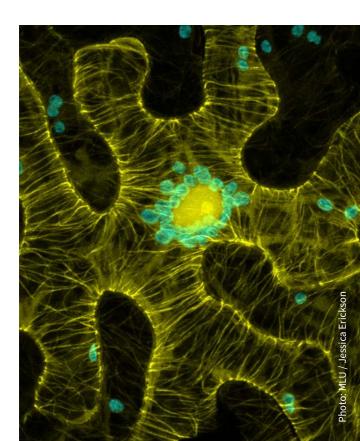
# **Application**

The admission to the MSc Molecular and Cellular Biosciences 120 CP is currently **restricted (Uni-NC)**.

Applicants with a **German** bachelor's degree (or equivalent) please apply via <u>www.uni-halle.de/bewerben</u> by **15 July** for winter semester, and by **15 January** for summer semester.

Applicants with international bachelor's degrees (or equivalent) please apply via <a href="https://www.uni-assist.de">www.uni-assist.de</a> – please check <a href="https://www.uni-halle.de/apply">www.uni-halle.de/apply</a> for application details and deadlines.

For information on the documents to be submitted, please visit www.uni-halle.de/+mcbsm.



#### **Modules**

The programme covers all aspects relevant for the research and the solution of bioscience-related issues. The curriculum is organised in a way that students are able to graduate from the programme within the regular period of study of 4 semesters.

Module	СР	rec. sem.
Compulsory modules (75 CP)		
Fundamentals in Molecular and Cellular Biosciences	15	1
Project study	15	3
Research internship	15	3
Research project module (Master's thesis)	30	4
Elective B1 - offered by the Institute (at least 30 CP)		
Developmental Biology	15	1 or 2
Molecular Animal Physiology	15	1 or 2
Molecular Biology of Organelles	15	1 or 2
Molecular Cell Biology	15	1 or 2
Molecular Genetics of Root Nodulation Symbiosis	15	1 or 2
Molecular Mechanisms in Developmental Genetics	15	1 or 2
Molecular Microbiology	15	1 or 2
Molecular Physiology of Microorganisms	15	1 or 2
Molecular Phytopathology and Plant Immunity	15	1 or 2
Plant Development and Stress Responses	15	1 or 2
Elective B2 - offered by other Institutes (maximum of 15 CP)		
Molekulare Ernährungs- und Ertrags- physiologie der Pflanze	15	1 or 2
Nucleic Acid Biochemistry	15	1 or 2
Plant Biochemistry	15	1 or 2
Cell Biochemistry and Virology	15	1 or 2

The content, learning objectives, workload, requirements and prerequisites of specific modules are published in the module catalogue and the study and examination regulations.



# **About Halle**

# About Halle and the University

With a population of almost 240,000, Halle is one of the largest cities in Central Germany. The small metropolis on the Saale river offers a versatile mixture of art, culture, gastronomy and recreation. Numerous national institutions are also headquartered in Halle. The Leipzig-Halle international airport is only 15 minutes away by train or car. It takes just over an hour to get to Berlin.

Halle University, founded in 1502, is one of the oldest universities in Germany and, with around 20,000 students, the largest in the federal state of Saxony-Anhalt. We rely on modern laboratory equipment as well as extensive support of our students by many professors and employees. With more than 260 programmes on offer in different areas of study, there is a suitable subject for everyone.

#### Additional information

Tuition fee: none

Semester fee: about 280 Euro

The scholarship *Deutschlandstipendium* offered by Halle University is available for national and international students. Please check its conditions and application at: <a href="https://www.uni-halle.de/deutschland-stipendium">www.uni-halle.de/deutschland-stipendium</a>.

Furthermore, the German Academic Exchange Service DAAD (www.daad.de) offers scholarships especially for master students. Make sure to apply for a scholarship before entering Germany.

Language courses: We deeply recommend to attend an intensive German language course before you start the master's programme. So it will be easier to manage your daily life in Germany.

Please contact Goethe Institute in your home country or the Institute for German Language and Culture at our University (<u>www.sprache.uni-halle.de</u>). During your studies we organize further language classes which have to be paid by yourselves.

Further information about accommodation, health insurance or cost of living are available at <a href="www.uni-halle.de/first-steps">www.uni-halle.de/first-steps</a>.

# Programme advisor/Project coordinator

#### Prof. Dr. Christian Eckmann

Institute of Biology

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#### Prof. Dr. Jürgen Krieger

Institute of Biology

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#### **General Student Guidance**

Email: ssc@uni-halle.de Location: Studierenden-Service-Center (SSC), Universitätsplatz 11 → Löwengebäude, 06108 Halle (Saale), Germany

We recommend making an appointment in advance.

#### International Students Section

Email: international.students@uni-halle.de Location: Studierenden-Service-Center (SSC), Universitätsplatz 11 → Löwengebäude, 06108 Halle (Saale), Germany

Postal address: Martin-Luther-Universität Halle-Wittenberg 06099 Halle (Saale) Germany

- *→ www.uni-halle.de/international-students*
- → www.uni-halle.de/apply

#### Publisher's note

This leaflet was published by the General Student Guidance of Halle University. The content was provided by the programme advisor. Its content is for information purposes only and is therefore not legally binding.

For latest news and further details see <u>www.uni-halle.de/+mcbsm</u>

