

# Biodiversity Sciences

## Master

**Master of Science**

*International master's programme*

**120  
CP**

effective: 04/2024 | Photo: MLU / Helge Bruelheide



MARTIN-LUTHER-UNIVERSITÄT  
HALLE-WITTENBERG



## Programme at a glance

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**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

**Language of instruction and examinations:** English

**Subject-specific requirements:** yes

## Programme objectives

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The international master's programme *MSc Biodiversity Sciences* aims to scientifically convey how the state and changes of biodiversity can be quantified across space and time, what evolutionary and ecological processes underlie them and what consequences arise from biodiversity changes for humans. Biodiversity forms the foundation for all ecosystem functions and human well-being on Earth. While the study programme is based on the fundamentals of the natural sciences, it has a strong interdisciplinary component. In the last decades, we have encountered a dramatic loss in and restructuring of biodiversity. As biodiversity and its change are strongly linked to society, the programme has a strong interdisciplinary component, addressing the options of how biodiversity can be maintained and integrated into the management of our planet's resources. To achieve these goals, various disciplines are engaged in the master's programme, from organismic to molecular biology, biogeochemistry, landscape ecology, natural resource management and bioinformatics to interfaces with socio-ecological sciences.

The consecutive study programme has a strong research orientation enabling students to work systematically and scientifically and to conduct independent scientific research while improving interdisciplinary knowledge as well as communication/teamwork skills. The international character of scientific research is taken into account by conducting the study programme, i.e. the lectures and examinations, entirely in English.

## Career opportunities

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*MSc Biodiversity Sciences* qualifies for positions in the following areas:

- Basic research on all aspects of biodiversity
- Subject-specific teaching tasks
- International development cooperation on biodiversity conservation
- Private sector: consulting, management and planning
- Public sector: biodiversity monitoring and administration
- Political consultancy

The programme also qualifies for PhD positions.

## Admission requirements

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Applicants for the *MSc Biodiversity Sciences* must

- hold a bachelor's degree or equivalent degree (min. 180 credit points) in one of the following fields of studies: biology, ecology, biogeochemistry, landscape ecology, natural resource management or bioinformatics. Graduates of a comparable study programme may also be admitted. prove good knowledge of written and spoken English.

Applicants must prove their **English language proficiency** by submitting either TOEFL, IELTS, Cambridge Certificate, Unicert II, German Abitur or an equivalent internationally recognised language certificate attesting **level B2** according to the Common European Framework of Reference for Languages (CEFR). However, proof of language proficiency is not required if the first degree was obtained in a study programme taught in English.

Comprehensive knowledge in organismic biology and species identification as well as experimental skills or experience in observational studies is required.

Basic knowledge in ecology, landscape ecology, biogeochemistry, natural resource management, bioinformatics, mathematics and statistics as well as socio-ecological sciences is strongly recommended.

# Application

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The admission to *MSc Biodiversity Sciences 120 CP* is currently **restricted (Uni-NC)**.

- Applicants with a German bachelor's degree (or equivalent) please apply via [www.uni-halle.de/bewerben](http://www.uni-halle.de/bewerben) by **15 July**.
- Applicants with a bachelor's degree (or equivalent) from abroad please apply via [www.uni-assist.de](http://www.uni-assist.de) by **15 June**.

Information on the documents to be submitted with the application for admission can be found at:  
[www.uni-halle.de/+bdivm](http://www.uni-halle.de/+bdivm)

# Modules

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The programme covers all aspects relevant for the research and the solution of biodiversity-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                                                                                                                                                                                                                                                                                                | CP | recom. sem. |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-------------|
| <i>Compulsory modules (75 CP)</i>                                                                                                                                                                                                                                                                     |    |             |
| Design of Research Studies                                                                                                                                                                                                                                                                            | 5  | 1           |
| Statistics in Biodiversity Sciences                                                                                                                                                                                                                                                                   | 5  | 1           |
| Research Internship                                                                                                                                                                                                                                                                                   | 15 | 2 or 3      |
| Excursions in Botany and Zoology                                                                                                                                                                                                                                                                      | 5  | 2 or 4      |
| Project Study                                                                                                                                                                                                                                                                                         | 15 | 3 or 4      |
| Final Module (Master's thesis and Public defense)                                                                                                                                                                                                                                                     | 30 | 3 or 4      |
| <i>Elective - offered by the Institute of Biology</i>                                                                                                                                                                                                                                                 |    |             |
| Methods of Systematic Botany                                                                                                                                                                                                                                                                          | 15 | 1 or 3      |
| Spatial Ecology and Modelling                                                                                                                                                                                                                                                                         | 15 | 1 or 3      |
| Collections and Biodiversity Research                                                                                                                                                                                                                                                                 | 5  | 1 or 3      |
| General Zoology                                                                                                                                                                                                                                                                                       | 15 | 2 or 4      |
| Field Ecology                                                                                                                                                                                                                                                                                         | 15 | 2 or 4      |
| Nature Conservation                                                                                                                                                                                                                                                                                   | 15 | 2 or 4      |
| Evolutionary Animal Ecology                                                                                                                                                                                                                                                                           | 15 | 2 or 4      |
| <i>Elective B2 - project modules offered by other institutes</i>                                                                                                                                                                                                                                      |    |             |
| offered by Institute of Geosciences and Geography<br><i>e. g. Environmental Modelling and Simulation • Land System Science 1/2 • Social-Ecological Systems 1-4</i>                                                                                                                                    |    |             |
| offered by Institute of Agricultural and Nutrition Sciences<br><i>e. g. Management of soil organic matter • Soil Biogeochemical analysis • Matter and material flow analysis</i>                                                                                                                      |    |             |
| offered by Institute of Computer Science<br><i>e. g. Modelling species distribution and biodiversity patterns • Statistical Data Analysis and Machine Learning in Biodiversity Research • Computational Transcriptomics • Computational Molecular Phylogenetics • Computational Sequence Analysis</i> |    |             |

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



Photo: MLU / Helge Bruelheide

# About Halle

The study programme is embedded in numerous research projects carried out at Halle University (MLU). MLU together with partner research centres, such as the *German Centre for Integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig*, offer a high number of research platforms that are open for students' projects. iDiv is a global hotspot in biodiversity science, with about 800 scientists in Central Germany working jointly and across disciplines on the key questions of biodiversity science.

In this context, *MSc Biodiversity Sciences* promotes cooperation between the various master's programmes in the field of biodiversity sciences at the universities of the Halle-Jena-Leipzig university network. Participation in modules in the corresponding study programmes is encouraged and can be recognised.

## Additional information

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**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: [www.uni-halle.de/deutschland-stipendium](http://www.uni-halle.de/deutschland-stipendium).

Furthermore, the German Academic Exchange Service DAAD ([www.daad.de](http://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 ([www.sprache.uni-halle.de](http://www.sprache.uni-halle.de)). 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 [www.uni-halle.de/first-steps](http://www.uni-halle.de/first-steps).

## Programme advisor/Project coordinator

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### **Prof Dr Helge Bruelheide**

Institute of Biology

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## General student guidance

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Email: [ssc@uni-halle.de](mailto: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

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Email: [international.students@uni-halle.de](mailto: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](http://www.uni-halle.de/international-students)

→ [www.uni-halle.de/apply](http://www.uni-halle.de/apply)

## Publisher's note

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[www.uni-halle.de/+bdivm](http://www.uni-halle.de/+bdivm)

