M.Sc. Biodiversity

Master of Science (1-Subject Master Programme)

German- and English-speaking degree course
Homepage: www.biologie.ruhr-uni-bochum.de/studium/bm/msc_b/

Start of the degree course
The study programme „biodiversity” starts in the winter semester of each year. Applications will be accepted on a rolling basis from 15 May - 15 July for the following winter term.

Entrance criteria
Students who have obtained a Bachelor of Science degree in biology may apply. This degree must be obtained from a university inside the scope of the Framework Act For Higher Education (Hochschulrahmengesetz). A comparable degree may be sufficient to start your Master programme in Bochum. The equivalence or the comparability of the final degree will be determined by the examination board (Prüfungsausschuss). The examination board will decide the additional credits and exams, as well as the period in which they are rendered.

Admission to the Master programme is locally restricted.
The procedure is carried out by the Ruhr-University. The places to study in our programme are solely allocated through the selection process of the university. Information about the application process can be found under:
http://www.biologie.ruhr-uni-bochum.de/mam/content/msc_b/bewerbungsverfahren_m_sc_biodiversitaet.pdf

General information about the online application can be found here:
www.rub.de/zsb/oertl-master.htm
www.rub.de/studierendensekretariat/studium/bewerbung_zulassung/master.html.de

Please send your documents (a transcript of records with at least 150 credit points and preliminary final grade or the final degree documents (certificate, diploma supplement, transcript of records) and proof of language skills (German and English)) to our admissions office.

The end of the application period is the 15th of July.
Additionally, for the online application form, all requested documents must be handed in to the admissions office of the Ruhr-University Bochum by the 15th of July. Updated documents (Final certificate instead of preliminary certificate or updated transcript of records) can be handed in before the 15th of September.

International university applicants:
Application through the International Office of the Ruhr-University Bochum
www.international.rub.de/bewerbung/

German- and English-exams are required before the start of the degree course.
**German-exam:**
e. g. DSH level 2 or 3; TestDaF (4x4) or German language diploma level 2 of the Goethe-Institut or Zeugnis der zentralen Oberstufenprüfung (ZOP) - now the Goethe-Zertifikat C2: GDS - of the Goethe-Institut.

**English-exam:**
UNIcert® II or IELS 6.0, TOEFL IBT 98, TOEFL PBT 597 or First Certificate in English (FCE)

**Important:**
Because alterations are possible: Please read the latest information about the application process on the following page: [www.rub.de/zsb/bewerb.htm](http://www.rub.de/zsb/bewerb.htm)

**Subject of study guidance:**

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**Internet:**
[http://www.biologie.ruhr-uni-bochum.de/studium/bm/msc_b/index.html.de](http://www.biologie.ruhr-uni-bochum.de/studium/bm/msc_b/index.html.de)

**Application- and admission-procedure**
Admission to the master programme “biodiversity” is restricted. The places to study are allocated via specific grades, the so-called "Vergabenoten", to applicants who meet the requirements of the entrance criteria. 51% of the specific grade is the final grade or the preliminary final grade of the first degree qualifying for a profession (usually the Bachelor of Science in biology). 49% of the grade will be given to the applicant based on their selection interview. As long as there are sufficient places to study for all applicants there will be no selection interviews. The purpose of the selection interviews is to determine if the applicant is particularly suited for the degree course. In particular, these interviews will evaluate the motivation, the independence and the subject-specific qualification of the applicant.
The following principles apply for the interview process:
The selection interview will normally be held at either the Ruhr-University Bochum or the University Duisburg-Essen by at least the 15th of September. The specific dates and locations will be announced at least two weeks prior to the date of the interview. The applicants will be invited well in advance via e-mail. A selection panel will hold a 20-minute-interview with every applicant.

**Length of support through the German Federal Law on Support in Education (Bafög) and standard period of study:** 4 Semesters.

**National and international co-operations**
The degree course is part of the close co-operation between the Ruhr-University Bochum and the University Duisburg-Essen within the University Alliance Ruhr (UA Ruhr). The professorships in the area of biodiversity research are complementarily aligned and optimally supplement with each other. The students are offered a wide variety for their choice of study and can individually specialize within their interests. Furthermore the third semester is designed as a practical semester, in which all obligatory courses can be finished via the internet so that a stay abroad is not only possible, but also desirable. If possible the students will be integrated into international research co-operations.

**Information about the course of study**
The degree course is research-orientated and is consecutively built up on a general study of biology. Graduates of the Master degree course ‘Biodiversity’ specialise in molecular, organismic and ecosystematic sections of biodiversity. They are able to systematically depict complex relations of the different organisational levels of biodiversity and to sort them in the context of already existing research results. Graduates will gain knowledge of systematics, taxonomy and phylogeny of organisms as well as of their functions and distribution in natural habitats. Graduates will expand their knowledge in typical field and laboratory work as well as a variety of modern scientific methods and “state of the art technologies”. Multidisciplinarity and the expansion of key competences aswell as competences in the area of “soft skills” are parts of the curriculum. Graduates have an overview of the current status of research in specific sections of biodiversity research and can critically and objectively evaluate results. They can conceive contributions to the scientific discussion of socially relevant questions, objectively and ethically evaluate them and justify the individual and societal relevance of research projects. Furthermore, Graduates of our programme can develop questions on their own, they can plan, conduct and evaluate research projects, they can put them into a bioscientific context and they can present them orally and in writing in an addressee-oriented form.

**Areas of specialisation**
The possibilities of specialisation arise from the research areas of the involved professors. Beyond that the attendance of complementary courses is possible, so that the development of a specialisation always takes place individually.
The following areas are represented:
General botany, general zoology, applied botany, applied zoology/hydrobiology, bioinformatics, evolution and biodiversity of plants, evolutionary ecology and biodiversity of animals, geobotany, plant physiology, behavioural biology, zoological biodiversity.

Obligatory courses
In the first semester the following courses are obligatory: Basic course Biodiversity, Methods of Biodiversity Research, Biodiversity In Research and Practice, Scientific Writing and Presentation. In the following semesters only the internet colloquium during the practice semester belongs to the obligatory courses. All other courses belong to the compulsory attendance of one out of more optional lecture courses and function as individual concentration and profiling.

Internships and stay abroad
The third semester is reserved for internships inside and outside of Germany. Upon consultation with lecturers students get themselves an internship that either serves as professional orientation or as profiling of their own research skills.

Study plan

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<tr>
<th>First semester</th>
<th>Type of exam</th>
<th>Number of credit points</th>
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<tbody>
<tr>
<td>Biodiv-M-1</td>
<td>Basic course Biodiversity</td>
<td>Oral exam</td>
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<tr>
<td></td>
<td>Lecture Introduction to phylogeny and diversity</td>
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<tr>
<td></td>
<td>Seminar Introduction to phylogeny and diversity</td>
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<tr>
<td></td>
<td>Lecture basic evolution and ecology</td>
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<tr>
<td></td>
<td>Seminar basic evolution and ecology</td>
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<tr>
<td>Biodiv-M-2</td>
<td>Methods of biodiversity research</td>
<td>Written exam</td>
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<td></td>
<td>Lecture: methods of biodiversity research</td>
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<tr>
<td></td>
<td>Tutorial: methods of biodiversity research</td>
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<tr>
<td>Biodiv-M-3</td>
<td>Biodiversity in research and practice</td>
<td>Paper and presentation</td>
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<td>Lecture series biodiversity</td>
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<td>Seminar: Science Slam</td>
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<tr>
<td>Biodiv-M-4</td>
<td>Scientific writing and presentation</td>
<td>Poster</td>
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<td></td>
<td>Lecture: Scientific writing</td>
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<td>Seminar: Scientific writing</td>
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<td>Seminar: Data presentation</td>
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<tr>
<th>Second semester</th>
<th>Type of exam</th>
<th>Number of credit points</th>
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<tbody>
<tr>
<td>Biodiv-M-5</td>
<td>Basic modul phylogeny, systematics, taxonomy</td>
<td>protocol/written minutes or presentation and oral exam</td>
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<td>Lecture and seminar or tutorial</td>
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<tr>
<td>Biodiv-M-6</td>
<td>Complementary modul phylogeny, systematics, taxonomy</td>
<td>protocol/written minutes or presentation</td>
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<td>Lecture and seminar or tutorial</td>
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### Specific features of the course of studies

The master program biodiversity has been offered by the universities of Bochum and Duisburg-Essen since the winter semester 2013/2014. Therefore students have access to an exceptional variety of courses with simultaneous specialisation. With a total professorship of ten in the key parts of the degree course the programme combines classic and modern issues of biodiversity research with the most modern methods.

### Career opportunities

The degree Master of Science in "Biodiversität/Biodiversity" offers an adequate qualification for the increasingly internationally-orientated job market with its partially very rapidly changing requirements. The specific orientation biodiversity is supposed to enable a special quality profile, which will gain in importance in the coming years. Alongside the academic area possible professional fields are located in environment and nature protection, in animal parks, in the industry of natural substance extraction, in the agriculture and forestry industry and in administrative bodies and public authorities.

### Doctorate

A doctorate is principally possible in all subjects at the universities of Bochum and Duisburg-Essen. Normally a degree (Master, Diploma, Staatsexamen) in this or a related subject is required. The Master in Biodiversity is a qualification for a doctorate in the international graduate school of bioscience of the department for biology and biotechnology.

Additional information under: [www.biologie.ruhr-uni-bochum.de/promotion/](http://www.biologie.ruhr-uni-bochum.de/promotion/)
Supporting information
The websites of the department for biology and biotechnology offer a considerable amount of additional information about the department itself, its degree courses and its focus of research. www.biologie.rub.de/

Additional links:
Subject-specific:
- www.biologie.ruhr-uni-bochum.de/
- www.uni-due.de/biologie/
- www.biologie.rub.de/studium/
- www.ruhr-uni-bochum.de/geobot/
- student representatives/student council: www.ruhr-uni-bochum.de/frbio/start

In general:
- Information on courses of study in Germany www.studienwahl.de/
- General information on master’s programs and Ruhr-University Bochum www.ruhr-uni-bochum.de/zsb/master_ab.htm
- Brochures by the course guidance centre of the Ruhr-University Bochum concerning studying in general www.ruhr-uni-bochum.de/zsb/download.htm
- Academic support (habitation, BAföG and more) www.akafoe.de/
- International office of the Ruhr-University international.rub.de/intoff/career service of the Ruhr-University www.ruhr-uni-bochum.de/careerservice
- Team for institutions of higher education of the employment agency Bochum www.ruhr-uni-bochum.de/zsb/h-team.htm
- General information on job possibilities/careers berufenet.arbeitsagentur.de/berufe/

Contact- and study-information regarding the whole offer of subjects at Ruhr University

Course guidance centre of the Ruhr-University Bochum
You can find our counselling times under www.rub.de/zsb/zeiten

Inquiries by e-mail: zsb@rub.de

Internet: www.rub.de/zsb
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