

Single-Major Bachelor  
Double-Major Bachelor

**Master** ◀

Master of Education

PhD

### ► Numbers and Facts

**Start:** winter semester  
**Duration:** 4 semesters  
**Degree:** Master of Science

### ► Application and Enrolment

#### Entry requirements

Entry requirement for a Masters programme is a BA honours degree or equivalent in the same or a closely related course of studies and a certificate of personal and academic aptitude.

Further information on entry requirements and application forms can be found in the admissions policy.

#### Application

Applicants with German higher education entrance qualifications should apply online to Oldenburg University.

International applicants: Please apply through uni-assist e.V.

For more detailed information and deadlines, refer to:  
[www.uni-oldenburg.de/en/students/application-and-enrolment](http://www.uni-oldenburg.de/en/students/application-and-enrolment)

### ► Contacts

#### For questions regarding your course of study

Academic Advisor  
Prof. Dr. Heribert Cypionka  
Phone: +49(0)441-798-5360  
E-Mail: [cypionka@icbm.de](mailto:cypionka@icbm.de)

#### General advice regarding studies

Student Advisory Service - Zentrale Studienberatung

#### Application procedures / Entry requirements

Admissions Office - Immatrikulationsamt

StudierendenServiceCenter  
Campus Haarentor A12  
26129 Oldenburg  
0441-798-2728  
[studium@uni-oldenburg.de](mailto:studium@uni-oldenburg.de)  
[www.uni-oldenburg.de/en/students/service-advice](http://www.uni-oldenburg.de/en/students/service-advice)

### ► Further Information

#### Homepage Microbiology

[www.study-microbiology.com](http://www.study-microbiology.com)  
[www.mikrobiologie-studieren.de](http://www.mikrobiologie-studieren.de)

#### Available courses

[www.uni-oldenburg.de/en/students/degree-programmes](http://www.uni-oldenburg.de/en/students/degree-programmes)

#### Funding

[www.uni-oldenburg.de/studium/finanzierung](http://www.uni-oldenburg.de/studium/finanzierung)

#### Impressum

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## Microbiology (M.Sc.)

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Microorganisms have governed the history of earth and the evolution of life. Today they still catalyze most of the chemical reactions on earth and drive the biogeochemical cycles. Microbiology is a rapidly developing science, but even by newest molecular techniques only a small part of the microbial diversity has been unraveled.

The Master program MSc. in Microbiology (in English) is designed to give German and international students a professional qualification in a field with great potential. The course offers a broad spectrum of microbiological fields with a focus on environmental and marine topics. By benefitting from ongoing research programs in marine science (as the DFG-funded collaborative research centre Roseobacter), as well as working in laboratories with state-of-the-art equipment for chemical analytics, modeling and molecular biology, the students gain deep understanding of microbial processes in marine ecosystems. Training of the students is performed in a way that enables them to critically assess scientific knowledge and to take responsibility for their own decisions and actions. This is supported by working in international teams and by courses on scientific communication.

### ► Structure and Contents

Within the 2-year course, the students collect a total of 120 credits (CP). The first two modules give a common grounding in microbial physiology, diversity, molecular biology and ecology, and training in scientific communication. During two 4-week practical courses and seminars (main modules) and three 2-week courses (profile modules), the students gain practical skills in various scientific fields like bacterial physiology, fermentation, DNA-sequencing, fluorescence in-situ hybridisation (FISH), proteomics, electron microscopy, aquatic microbial ecology, and sediment microbiology. Finally, the students undertake two independent scientific research projects of 6 weeks, one of which is continued as Master's thesis for six months.

The Microbiology Course consists of the following modules:

Microbial Physiology and Diversity	12 CP
Molecular Mechanisms and Interactions	12 CP
Main Modules	24 CP
Profile Modules	18 CP
Research Projects	24 CP
Masters thesis	30 CP
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	120 CP

### ► Fields of Employment

Many of our graduates have the opportunity to continue their career as PhD students at the ICBM in Oldenburg, or in other research institutes nearby. In addition, a wide range of attractive employment fields is available for microbiologists. Our graduates have excellent opportunities in biotechnological, chemical and food industries, as well as prospects in environmental protection, e.g. waste-water treatment and bioremediation. Microbiological and molecular techniques are also applied in agriculture to evaluate the quality and microflora of soils and to detect potential pests. A wide range of options are available to the microbiology graduate. Due to the rapid development of molecular biology, job opportunities are growing every day.