## Prerequisites

In general, the prerequisite for master's studies at the University of Potsdam is an academic degree, such as a bachelor's degree. Your first degree should be in a subject that is relevant to your course of study, for example in the biosciences, biochemistry, biotechnology, or biomedicine. To be admitted to the program, you must provide documentation of your knowledge of molecular biology and biochemistry equivalent to at least of at least 60 credit points.

Because this degree program is taught in English, very good English skills are required, corresponding at least to the B2 level of the Common European Reference Framework for Languages.

You can read more about the subject-specific admission requirements in the respective Admission Regulations: *www.uni-potsdam.de/studium/de/konkret/rechtsgrundlagen/zulassungsordnungen-fuer-master*

## Application

Are you interested in studying for the English-language master's degree in Biochemistry and Molecular Biology at the University of Potsdam? Then take the next step and get more information about the current application and enrollment procedures at the application website: *www.uni-potsdam.de/studium/zugang/bewerbung-master*

The course of study starts (1st semester) in summer or winter semester.

**Stand:** Mai 2016
**Bildquellen:** Institute of Biochemistry and Biology

## Further Information

Degree and Examination Regulations:
*www.uni-potsdam.de/studium/de/konkret/rechtsgrundlagen/studienordnungen*

## Counselling and Contact

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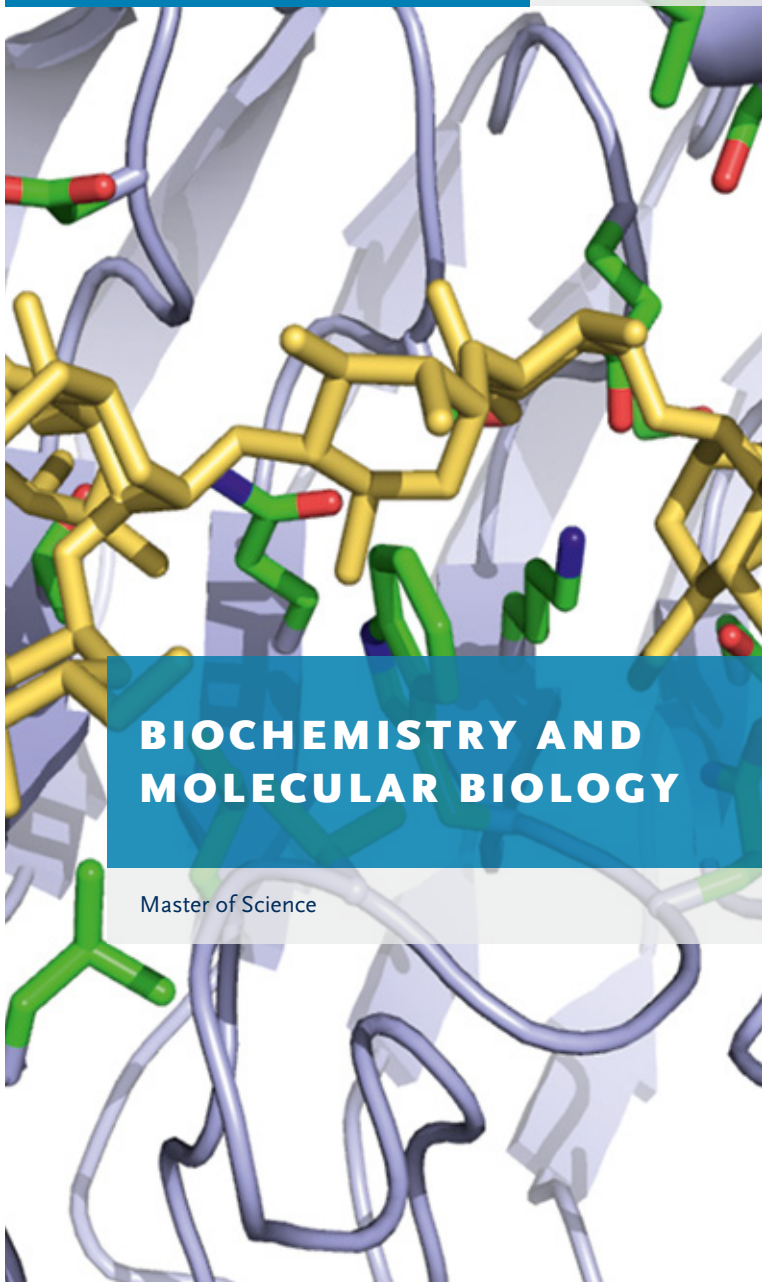
*www.uni-potsdam.de/studium/beratung/zsb*

Universität Potsdam



# BIOCHEMISTRY AND MOLECULAR BIOLOGY

Master of Science

## Program Content

This master's program offers you both the opportunity to perform basic research and to pursue more application-related projects.

In the field of biochemistry, you will focus on the dynamics and processes of protein synthesis and function, as well as their interactions at the intra- and extracellular levels. These processes are becoming relevant for such practical applications as diagnosis and therapy for neurodegenerative illnesses and tumorigenesis. Molecular biology, in contrast, studies molecular processes at the level of cells and organisms, opening up new prospects in genome research, cellular and systems biology, and plant and animal physiology.

In addition to discussing the latest research questions in biochemistry and molecular biology, you will gain comprehensive, in-depth knowledge of the structure and use of biological databases, be able to use Internet-supported resources, and be in a position to apply methods from systems biology in the analysis and interpretation of high-throughput data. Furthermore, you will learn various techniques for data analysis, and become acquainted with new methods in nanobiotechnology.

## Program Objective and Future Career Options

The master's program allows you to expand and deepen the skills, specialized knowledge, and methodological skills that you attained in your bachelor's studies. You will gain an overview of the current status of research in the fields of biochemistry, molecular biology, genetics, genomics, systems biology, and biotechnology. You will also gain a thorough understanding of the essential concepts in these fields. You will be able to formulate scientific problems on your own, select appropriate methods and techniques, and thus successfully work on complex projects and publish the results. If you are pursuing a career in academia, there is the option of doctoral studies.

The skills you acquire in the master's program qualify you for work in research, teaching, and development, for example at universities and other scientific institutions, as well as biotech or biomedical companies, and also in administration and management.

## Program Structure

In the four-semester master's program, you earn a total of 120 credit points (CP), consisting of the following modules and your master's thesis:

| Modules | |
|---|---|
| Mandatory Modules | 12 CP |
| Orientation Modules<br>3x lecture, seminar, 6-week research project | 33 CP |
| Advanced Research Practical | 5 CP |
| Elective Modules | 40 CP |
| Master's Thesis | 30 CP |
| **Total** | **120 CPs** |

For additional information on specific modules, please consult the subject-specific Degree Regulations:
*www.uni-potsdam.de/studium/de/konkret/rechtsgrundlagen/studienordnungen*

## Research Environment

Studying at the largest department in the Faculty of Science enables you to do more than just participate in taught courses on cutting-edge topics. The program's practical orientation provides great opportunities for first-hand research involvement because of our extensive network of extramural institutes and research institutions, such as the Max Planck Institute for Molecular Plant Physiology (MPIMP), the Max Planck Institute of Colloids and Interfaces (MPIKG), and the Fraunhofer Institute for Biomedical Technology (IBMT).