

# Required Skills

- You are interested in Mathematics and enjoy logical thinking and reasoning.
- You are persistent and you like to get to the bottom of things.
- You are open to exploring new ideas and confronting challenging problems.

# Admission Requirements

**Bachelor:** Entry requirements include a German Abitur or (a degree that is recognized as equivalent) and very good German language proficiency. Details can be found on the following pages:

www.uni-potsdam.de/en/studium/application-enrollment/ before-application-enrollment/hzb

**Master:** For admission to the Master's program, you must hold a Bachelor's degree in mathematics, or an equivalent degree.

# Application and Admission

Entry to the Bachelor's degree program is only possible in winter term. For the Master's degree program, admission is for both winter and summer term. Current information on the application and admission procedure can be found at: www.uni-potsdam.de/studium/en/application-enrollment/

### Further Information

Information on the Institute of Mathematics of the University of Potsdam and our current activities can be found at: www.math.uni-potsdam.de/en/

### Contact

#### Academic Advising

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#### Central Student Advising

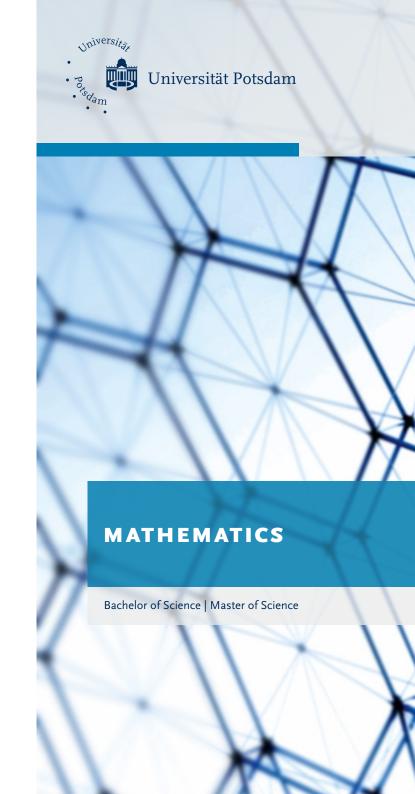
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www.uni-potsdam.de/studium/en/advising-and-services/zsb/

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## Content of the Study Program

The abstract beauty of modern day mathematics is only matched by its remarkable efficiency in applications in nearly every area of modern science. These applications stretch from medicine, neuroscience, and telecommunication to financial models and ecology. A degree in mathematics provides the knowledge and skills to apply mathematical models to expand and develop their underlying theories and concepts. The Institute of Mathematics of the University of Potsdam offers students a friendly, individual and comprehensive assistance in every aspect of their studies. To complement their mathematics curriculum, students are offered the option to pursue a minor in subjects such as physics, computer science, biology, geology, chemistry or economics in order to get acquainted with applications relevant for their future career.

## **Prospective Careers**

The employment prospects of graduates in mathematics are excellent and offer a striking variety of possibilities. Mathematicians work in industry, for banks and insurance companies, in management as well as in research institutions and academia. Their tasks are many and diverse: development and application of methods in algebra, analysis, geometry, computational mathematics, analysis of random systems, numerical analysis as well as signal and data processing. They solve problems in optimization and develop models and simulations for complex processes in nature, economics and business. Most importantly, future employers not only appreciate the wide range of knowledge of math graduates but first and foremost the perseverance and problem-solving skills acquired by mathematicians throughout their training.

### Objectives

- Students acquire fundamental and readily applicable knowledge of mathematical methods and theories. This is based on developing an ability to approach problems in an analytical and structured way.
- By the end of their Bachelor's degree, students have acquired the basic knowledge to start a professional career.
- The Master's degree program extends the knowledge and skills acquired in a Bachelor's degree. Students choose individual areas of specialization in which they get acquainted with current research topics.

# Study and Research Environment

Studying at the University of Potsdam takes place in small groups both for lectures and exercise sessions, a privileged setup which offers many opportunities for interactions with lecturers and fellow students. In a friendly atmosphere, and thanks to an individualized Mentoring Program, students may contact: engage with a faculty member, a mentor who serves as a guide in the process of choosing coursework and who provides useful advice throughout the semester. The Institute has close connections to university and non-university research institutions in Potsdam and the greater area of Berlin and Brandenburg. This offers the opportunity for Master's and PhD students to get in touch with research groups and companies to complement their academic training.

### Curriculum

The Master's degree program follows up on the Bachelor's degree program. The duration of the studies is of three years (divided into six semesters) for the Bachelor's degree, and two years (divided into four semesters) for the Master's degree.

## The Bachelor's Program

The first two years of the Bachelor's degree program are devoted to the foundations of mathematics. The third year offers opportunities for individual specialization.

1st year	Foundations: Analysis, Linear Algebra and Analytical Geometry	
2nd year	Extensions: Algebra, Analysis, Computational Mathematics, Geometry, Probability theory, Statistics	Minor
3rd year	Individual Specialization and Bachelor thesis	

# The Master's Program

Building on the knowledge acquired during the Bachelor's degree, the Master's program leads students to the current frontiers of research and offers individual specialization. The strong research focuses of the Institute of Mathematics are reflected in the curricula through two distinctive profiles:

Analysis, Geometry and Probability – Interactions with Physics

Applied Mathematics – Modelling and Data Analysis

These two profiles complement each other and guarantee a consistent and focused education that is enhanced through the tight connection to non-university research institutions on campus. Furthermore, the program offers high flexibility and allows the development of individual specializations within either profile. In all questions concerning the planning of their coursework, students can also rely on the assistance of their mentors.