



JACOBS
UNIVERSITY

EXPLORE
BIO SIMULATION

COMPUTATIONAL LIFE SCIENCE (MSc)

GRADUATE PROGRAM

COMPUTATIONAL LIFE SCIENCE

Over the last decades, biomedical research has become increasingly interdisciplinary in nature, focusing heavily on the analysis of system-wide quantitative information. In fact, quantitative methods of computational and theoretical modeling pervade all biological sciences. The presence of evermore sophisticated high-throughput techniques in understanding complex biological processes pose new computational challenges that must be addressed, in particular for data integration and model-based data interpretation.

The Computational Life Science (CompLife) MSc program provides an academically challenging, broad, and research-oriented degree that meets the demand for expertise in this ever-changing field. This two-year graduate program encompasses all computational, theoretical, and mathematical approaches in biology and life sciences at Jacobs University, and is geared towards bioinformaticians, physicists, computer scientists, and applied mathematicians. The CompLife program is strongly linked to related programs and research areas, such as theoretical physics, applied mathematics, and molecular life science.



PROGRAM FEATURES

Jacobs University is an excellent hub for graduate studies in all areas of computational life science. The two-year graduate program in Computational Life Science covers computational, mathematical, and theoretical approaches to biology and the life sciences in order to understand diverse biological phenomena. Core components of the program and areas of specialization include:

- Computational Systems Biology
- Computational Physics and Biophysics
- Bioinformatics and RNA Biology
- Imaging and Modeling in Medicine
- Ecological Modeling and Theoretical Biology
- Applied Mathematics and Numerical Methods

For details on the curriculum, please visit:

■ www.jacobs-university.de/study/graduate/programs/computational-life-science



CAREER OPTIONS

As a graduate student of Computational Life Science you are prepared for a wide range of employment opportunities in biotechnology, the pharmaceutical industry, and related areas. Likewise you are qualified to move on to a PhD and a career in academia and research.



HOW TO APPLY

Applicants to the Computational Life Science graduate program must have a Bachelor of Science (BSc) degree or equivalent (minimum three years of study). Your application needs to include the following documents:

- Letter of motivation
- Curriculum vitae (CV)
- University transcript in English or German
- Bachelor's degree certificate or equivalent (may be handed in later)
- Two letters of recommendation
- English language proficiency test certificate. Native speakers and applicants who completed their undergraduate studies in English may be exempt from this requirement.

For details on the online application process, please visit:

■ www.jacobs-university.de/graduate-admission

TUITION

Tuition for the Computational Life Science program is €20,000 per academic year.

SCHOLARSHIPS

Jacobs University is renowned for its extensive and generous scholarship program. Therefore, each applicant for this program is automatically considered for a merit-based scholarship. Depending on availability, additional scholarships sponsored by external partners are offered to highly gifted students.

ACCOMMODATION

Jacobs University offers you accommodation on campus. Each of the four residential colleges has its own dining room, recreation room, study areas, and common and group meeting rooms. Your fellow students, Jacobs University's sports facilities, and a vibrant campus life help you to quickly feel at home. Room and board can be requested during your application.



ABOUT JACOBS UNIVERSITY

Jacobs University is a state-accredited, research-oriented, private university in Bremen, Germany. It is one of the most international academic institutions in the country, characterized by a truly intercultural community. Founded in 2001, Jacobs University attracts highly talented and open-minded students from all over the world: more than 1,300 students from over 100 nations currently live and study on our residential campus. Jacobs University offers

a broad portfolio of undergraduate and graduate programs that range from natural and social sciences to engineering and economics. The language of instruction is English.

Research and education at Jacobs University are structured in three distinct focus areas:

— **MOBILITY – OF PEOPLE, GOODS, AND INFORMATION**

— **HEALTH – FOCUS ON BIOACTIVE SUBSTANCES**

— **DIVERSITY – IN MODERN SOCIETIES**

Class sizes are small, enabling professors to act as personal mentors and academic advisors to students. Our faculty members address issues from multiple perspectives through their transdisciplinary research and teaching approaches, and students are actively involved in research from their first year of study. Over the last decade, Jacobs University has consistently achieved top marks according to Germany's most comprehensive and detailed university ranking by the Center for Higher Education.



CONTACT

Prof. Dr. Marc-Thorsten Hütt
Head of Program

Dr. habil. Jens Christian Claussen
Program Coordinator

complife@jacobs-university.de

For the latest information on the program,
please visit:

— jacobs-university.de/computational-life-science

