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Doctorate



GGNB Physics of Biological & Complex Systems - IMPRS (PhD)

University of Göttingen • Göttingen

Overview

Degree	PhD (Division of Mathematics and Natural Sciences) or, alternatively, Dr rer nat
In cooperation with	Max Planck Institute for Multidisciplinary Sciences (MPI-NAT), Max Planck Institute for Dynamics and Self-Organization (MPI-DS)
Teaching language	• English
Languages	English
Full-time / part-time	• full-time
Programme duration	6 semesters
Beginning	Only for doctoral programmes: any time
Application deadline	Application is possible independent of deadlines.
Tuition fees per semester in EUR	None
Combined Master's degree / PhD programme	No
Joint degree / double degree programme	No
Description/content	Building upon the increasingly strong links between physics, chemistry and the life sciences, the programme aims at advancing the quantitative and molecular understanding of life processes while at the same time exploring new frontiers of physics.
	Research topics include biomolecular structure and dynamics, biological membranes, the underlying cytoskeleton, motor proteins, cell division and intracellular transport, communication and sensory processes as well as structure and pattern formation in systems of interacting cells and tissues (heart muscle).
	The programme offers cutting-edge advanced microscopy and teaches the basics of new cutting-edge techniques essential for studying life processes in combination with quantitative physical approaches and synthetic strategies. An important aim is to overcome traditional barriers between disciplines and expose graduate students to physics, chemistry and biology for a deeper understanding of all areas, preparing students for increasingly interdisciplinary life sciences.

Course Details

Course organisation

The doctoral programme in "Physics of Biological and Complex Systems" is offered by the Göttingen Graduate Center for Neurosciences, Biophysics, and Molecular Biosciences (GGNB). The programme is also recognised and funded as an International Max Planck Research School.

The research-oriented programme is taught in English and open to students who hold a Master's degree (or equivalent) in physics, chemistry, life sciences, or related fields.

The GGNB offers an integrated training and qualification concept consisting of:

- Thesis advisory committees advising the doctoral student and monitoring the progress of the doctoral project
- Scientific methods courses, seminars and summer schools in all science areas covered by the graduate school
- Professional skills courses in the four categories of Scientific Communication; Good Scientific Practice, Ethics, and Intellectual Property; Self-Management and Organisational Skills; and Career Development as well as German language courses and courses on scientific English
- Industry excursions to biotechnological, pharmaceutical, optical or (bio)physical companies, guided by GGNB alumni
- Student-organised scientific symposia and career-related events
- Annual PhD retreats organised by the programmes

In total, 20 credits are required, and doctoral students can tailor their individual curricula by choosing from all courses and events. Only a seminar on good scientific practice is mandatory.

The doctoral students hold at least three annual Thesis Advisory Committee meetings within the regular PhD time of three years. The maximum duration of PhD studies in GGNB is four years.

A Diploma supplement will be issued

No

International elements

- Language training provided
- Training in intercultural skills
- Projects with partners in Germany and abroad

Integrated internships

Option of research collaboration with other research institutions

Special promotion / funding of the programme

IMPRS

Course-specific, integrated German language courses

Yes

Course-specific, integrated English language courses

Yes

Costs / Funding

EUR

Semester contribution	Fees are around 400 EUR per semester. The fees include a prepaid semester ticket that entitles students to use regional trains in Germany free of charge. Fees: http://www.uni-goettingen.de/fee Semester ticket: http://www.uni-goettingen.de/en/16432.html
Costs of living	The average cost of living in Göttingen is modest compared to other major university cities in Germany. Currently, expenses for accommodation, food, health insurance and books are approx. 1,000 EUR per month. Please note that fees for health insurance may vary according to age. Living expenses might be slightly higher. Students of the University of Göttingen receive discounts for cultural events. Meals and drinks are also available at reduced prices at all university canteens. For further information, please see the following link: www.uni-goettingen.de/en/54664.html
Funding opportunities within the university	Yes
Description of the above- mentioned funding opportunities within the university	Doctoral fellowships are available at approx. 1,400 to 1,600 EUR per month.

Requirements / Registration

Academic admission requirements	Master's degree or equivalent in physics, chemistry, life sciences, or a related discipline
Language requirements	Applicants whose native language is not English are asked to submit proof of proficiency in English. If no English test is available, proficiency in English can be evaluated during a personal interview. Proven higher education in English or a reasonably long stay in an English speaking country may also be accepted.
Application deadline	Application is possible independent of deadlines.
Submit application to	Online application at https://www.uni-goettingen.de/en/497097.html.

Services

Accommodation

The Accommodation Service of the International Office supports international students who are enrolled at the University of Göttingen to find accommodation in Göttingen and serves as a point of contact for queries. The service works together with the private market in Göttingen and the Student Services ("Studentenwerk"). As the amount of accommodations in Göttingen is limited, it is highly recommended to contact the Accommodation Service as early as possible.

For further information, please see the following link: https://www.uni-goettingen.de/en/617883.html

Please note: For doctoral students, accommodation services are only available if you have a low income.

Structured research and supervision	Yes
Research training / discussion	Yes
Career advisory service	Information on the career service for doctoral students in the natural sciences can be found here: http://www.gauss.uni-goettingen.de/career
Support for international students and doctoral candidates	 Buddy programme Visa matters Help with finding accommodation Support with registration procedures

General services and support for international students and doctoral candidates

International Office

German students help newly arrived students to adapt to the university and the city during their first weeks. There is also an orientation week for new international students, which provides valuable information about Göttingen and the university.

Study Buddy Programme as a part of the project Integration and Diversity at Göttingen University (InDiGU)

Foyer International: Cultural evenings and more for all students

Contact

University of Göttingen

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Course website: https://www.uni-goettingen.de/de/56640.html

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International Programmes in Germany - Database

www.daad.de/international-programmes www.daad.de/sommerkurse

Editor

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Disclaimer

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