



Deutscher Akademischer Austauschdienst
German Academic Exchange Service



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Master's degree



Master of Science in Physics

Paderborn University • Paderborn

Overview

Degree	Master of Science in Physics
Teaching language	<ul style="list-style-type: none">English
Languages	All courses are offered in English (100%), but students can choose to substitute these courses with German courses.
Full-time / part-time	<ul style="list-style-type: none">full-time
Programme duration	4 semesters
Beginning	Winter and summer semester
Application deadline	Winter semester: 31 May for international applicants (21 September for applications from Germany) Summer semester: 30 November for international applicants (21 March for applications from Germany)
Tuition fees per semester in EUR	None
Combined Master's degree / PhD programme	No
Joint degree / double degree programme	No
Description/content	While the course contains advanced general lectures about experimental and theoretical physics that leave all options for subsequent career paths open, many of the specialised compulsory elective courses focus on computational physics and materials science, with a particular focus on the optoelectronic properties of micro- and nano-structures (i.e., their fabrication, characterisation, spectroscopic properties, device applications, and theoretical simulation).

Course Details

Course organisation

In the first two semesters, you will attend lectures in theoretical and experimental physics as well as seminars. There is a compulsory course in advanced quantum mechanics in the first semester, but most other courses during this phase are electives and can be chosen according to your interests and desired specialisation. The lectures are accompanied by practical classes in which experiments are performed and/or theoretical exercises in which solutions to physics problems are worked out and presented by the students. In addition, you will learn to develop a scientific topic based on existing literature and present it to your fellow students in two seminars. Finally, a few courses of general studies can be freely chosen from the university's complete lecture catalogue. In particular, this includes the possibility to attend German language classes.

In your second year, you will join one of the research groups within the department and work on a supervised individual research project that will form the basis for your Master's thesis. The special skills and knowledge required for the project are acquired during a preparatory phase in the third semester. After completion of the research project, the written thesis will be submitted at the end of the fourth semester. Usually, the thesis work is defended in a colloquium, which consists of a presentation followed by questions.

Course objectives

Degree holders have a deep understanding of the fundamentals of physics and have the qualifications for independent scientific work in research and technology. The special expertise in optoelectronics, materials science, and/or computational physics (depending on the choice of specialisation), represents a key advantage for employment in the optics and electronics industry or in relevant academic institutions. The degree also qualifies graduates to enter PhD programmes in Paderborn or elsewhere.

A Diploma supplement will be issued

Yes

International elements

- International guest lecturers

Course-specific, integrated German language courses

No

Course-specific, integrated English language courses

Yes

Costs / Funding

Tuition fees per semester in EUR

None

Semester contribution

Approx. 350 EUR per semester

The fee includes a semester ticket covering all regional public transport in the state of North Rhine-Westphalia.

Costs of living

Approx. 700 EUR per month is needed to cover personal expenses.

Funding opportunities within the university

No

Requirements / Registration

Academic admission requirements	Bachelor's degree in physics (or equivalent) The applicant's final grade should be at least 3.0 (according to the German grading system).
Language requirements	Applicants must provide proof of their English skills: Cambridge English Certificate: Advanced (CAE) or Proficiency (CPE) or TOEFL 550 (paper-based) or 79 (Internet-based) or equivalent (e.g., IELTS 6.0). Applicants holding a Bachelor's degree from an institution in Australia, Great Britain, Ireland, Canada, New Zealand, or the USA do not have to provide proof of their English skills.
Application deadline	Winter semester: 31 May for international applicants (21 September for applications from Germany) Summer semester: 30 November for international applicants (21 March for applications from Germany)
Submit application to	Universität Paderborn c/o uni-assist e.V. 11507 Berlin Germany

Services

Possibility of finding part-time employment	Students can obtain paid jobs tutoring, performing technical work, or supporting research projects within one of the research groups of the department.
Accommodation	The University of Paderborn offers several student halls of residence on or near the campus. As an alternative, one can look for a room or an apartment on the private market. The typical rent is between 250 and 350 EUR per month.
Support for international students and doctoral candidates	<ul style="list-style-type: none">• Cultural and linguistic preparation• Visa matters• Pick-up service
General services and support for international students and doctoral candidates	During the week before the start of each semester, the International Office (IO) offers various orientation and information meetings for all foreign students. The IO also offers a range of German language courses, supports students from abroad in all legal and social matters, and organises excursions and social activities. https://www.uni-paderborn.de/en/studium/international-office/

Paderborn University

<https://www.uni-paderborn.de/en/>



University location

<https://www.paderborn.de/microsite/welcome/index.php>

Contact

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🌐 Course website: <https://physik.uni-paderborn.de/en/course-program/physik-master>

📘 <https://www.facebook.com/unipaderborn>

🐦 <https://twitter.com/unipb>

📷 https://www.instagram.com/uni_paderborn/

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International Programmes in Germany - Database

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

Editor

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www.gate-germany.de

Disclaimer

The data used for this database was collected and analysed in good faith and with due diligence. The DAAD and the Content5 AG accept no liability for the correctness of the data contained in the "International Programmes in Germany" and "Language and Short Courses in Germany".

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