



Deutscher Akademischer Austauschdienst
German Academic Exchange Service



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Master's degree



Optoelectronics & Photonics

Paderborn University • Paderborn

Overview

Degree	Master of Science in Optoelectronics & Photonics
Teaching language	<ul style="list-style-type: none">English
Languages	All courses are held in English (100%).
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	The course combines advanced lectures in physics and electrical engineering with a particular focus on optical technologies. Specialisation in a particular field is possible in the elective courses and thesis work. Possibilities include quantum information technology, ultrafast nano-optics, computational design of optoelectronic structures, nanostructure fabrication and characterisation.

Course Details

Course organisation	In the first two semesters, you will attend lectures in physics and electrical engineering as well as
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practicals in the lab. Most of the courses in this phase of your studies are compulsory to provide you with a broad background. In the second and third semesters, these courses are complemented by elective courses that can be chosen according to your interests and desired specialisation in the field of optical technologies. All lectures are accompanied by practical classes where problems are solved, discussed, 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 a seminar. Finally, a few courses of general studies can be chosen freely from the university's lecture catalogue. In particular, this includes the possibility to attend German language classes. In your second year, you will start joining one of the research groups within the departments and work on a supervised individual lab project that may form the basis for your Master's thesis. After completion of the Master's thesis research project, the written thesis will be submitted towards the end of the fourth semester. Subsequently, the thesis work is defended in a colloquium which consists of a presentation followed by questions.

Degree holders have a deep understanding of the fundamentals of optical technologies and have the qualifications for independent scientific work in research and technology. The special expertise in optical technologies and the acquisition of skills in both physics and engineering represent a key advantage for employment in the optics and electronics industry or in academic institutions. The degree also qualifies graduates to enter PhD programmes in Paderborn or elsewhere.

A Diploma supplement will be issued	Yes
International elements	<ul style="list-style-type: none"> • International guest lecturers
Course-specific, integrated German language courses	No
Course-specific, integrated English language courses	No

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 Natural Science or Engineering degree that includes physical and mathematical fundamentals and a quantum theory course)
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Language requirements	<p>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)</p> <p>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.</p>
Application deadline	<p>Winter semester: 31 May for international applicants 21 September for applications from Germany</p> <p>Summer semester: 30 November for international applicants 21 March for applications from Germany</p>
Submit application to	<p>Universität Paderborn c/o uni-assist e.V. 11507 Berlin Germany</p>

Services

Possibility of finding part-time employment	<p>Students can get paid jobs as tutors, for technical work, or for supporting research projects within one of the research groups of the department.</p>
Accommodation	<p>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.</p>
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	<p>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/</p>

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/optoelectronics-and-photonics-master-of-science>



<https://www.facebook.com/Optoelectronics-Photonics-Master-at-Paderborn-University-1209596742504467/>

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International Programmes in Germany - Database

www.daad.de/international-programmes
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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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