



Deutscher Akademischer Austauschdienst  
German Academic Exchange Service



## Table of Contents

<b>Master's degree</b> .....	<b>2</b>
<b>Physics • Dresden University of Technology • Dresden</b> .....	<b>2</b>

# Master's degree



## Physics

Dresden University of Technology • Dresden

## Overview

Degree	Master of Science
Teaching language	<ul style="list-style-type: none"><li>English</li></ul>
Languages	<p>The Master's degree programme in Physics is taught primarily in English.</p> <p>Students can decide to take their examinations for the seminars, lab courses, basic and specialisation subjects in English or German. The language of instruction and examination in the non-physics minor subjects is either English or German and is based on the courses offered in the minor course catalogue.</p> <p>The Physics Master's can thus be studied entirely in English.</p>
Full-time / part-time	<ul style="list-style-type: none"><li>full-time</li><li>part-time (study alongside work)</li></ul>
Programme duration	4 semesters, 8 semesters
Beginning	Winter and summer semester
Additional information on beginning, duration and mode of study	<p>The programme can be started in the winter semester or the summer semester.</p> <ul style="list-style-type: none"><li>Standard period of study for full-time studies: four semesters</li><li>Standard period of study for part-time studies: eight semesters</li></ul>
Application deadline	<p><a href="#">Application deadlines and information on the application procedure are available online.</a></p> <ul style="list-style-type: none"><li>Application deadline for German applicants and educational residents:<ul style="list-style-type: none"><li>Winter semester: 1 June to 15 September</li><li>Summer semester: 1 December to 15 March</li></ul></li><li>Application deadline for international EU and non-EU applicants:<ul style="list-style-type: none"><li>Winter semester: 1 April to 15 July</li><li>Summer semester: 1 October to 15 January</li></ul></li></ul> <p>Please consult the <a href="#">study information pages</a> for further details.</p>
Tuition fees per semester in EUR	None
Combined Master's degree / PhD programme	No

Joint degree / double degree programme No

#### Description/content

The Master's degree programme in Physics at TU Dresden aims to consolidate insights into interrelations within physics as well as connections to neighbouring disciplines.

During the one-year research phase, you will acquire the necessary skills to become acquainted with current topics in physics, to design and conduct experiments or theoretical methods in this field, to categorise the results and to draw conclusions for application to technical developments and scientific progress.

The specialisation areas are:

- Applied Physics
- Solid State and Material Physics
- Particle and Nuclear Physics
- Theoretical Physics
- Soft Matter Physics and Biophysics

Collaboration with other subject areas in the natural sciences, technology and the humanities in 13 minor subjects, each with multiple elective topics, guarantees a diverse profile for acquiring a basic understanding of topics in other subject areas and the necessary skills for interdisciplinary work. Examples of minor subjects are:

- Mathematics
- Bio Mathematics
- Electrical Engineering, Electronics, Nano-Electronics,
- Civil Engineering, Energy Technologies, Aviation and Aerospace Engineering, Hydrogen and Nuclear Energy Technologies
- Chemistry (organic, inorganic)
- Biology, Molecular Biology
- Computer Science
- Philosophy
- Materials Science, Nano-Science
- Economics, Business Administration

## Course Details

#### Course organisation

The Master's course in Physics at TU Dresden is structured in two parts: a one-year phase of regular studies with courses and seminars, and a one-year research phase.

In the first year, the obligatory courses in experimental and theoretical physics offer a broad overview of modern physics topics and their interconnections. Specialisation courses and a seminar can be chosen in the fields of applied physics, solid state and material physics, particle and nuclear physics, theoretical physics, soft matter physics and biophysics. These topics correspond to the main research areas at the Faculty of Physics. In case of experimental specialisation, an advanced laboratory course is part of the curriculum. A non-physics minor can be selected among a large variety of 13 non-physics subjects.

The second year of the Master's programme is devoted to a research project, which is divided into scientific research studies and the Master's thesis. The research topic can be chosen within the specialisation areas offered at the Faculty of Physics and by the affiliated research institutes. The research studies and the Master's thesis are usually on a single, overarching research topic.

[More details can be found in the official study documents, which are available online.](#)

» [PDF Download](#)

#### International elements

The curriculum of the Master's course of studies in Physics foresees the first summer semester as an optional time slot for studies abroad. These studies may be organised within the ERASMUS

	framework or on individual initiative. <a href="#">Counselling for international studies is offered by the Faculty of Physics.</a>
<b>Description of other international elements</b>	The curriculum of the Master's course of studies in Physics foresees the first summer semester as an optional time slot for studies abroad. These studies may be organised within the ERASMUS framework or on individual initiative. <a href="#">Counselling for international studies is offered by the Faculty of Physics.</a>
<b>Integrated internships</b>	<p>The Master's course of studies in Physics integrates practical and advanced laboratory courses in experimental physics specialisation areas. Students specialising in theoretical physics may chose among various practical theory tutorials.</p> <p>Practical laboratory courses may also be offered within the non-physics minors.</p>
<b>Course-specific, integrated German language courses</b>	No
<b>Course-specific, integrated English language courses</b>	No

## Costs / Funding

<b>Tuition fees per semester in EUR</b>	None
<b>Semester contribution</b>	Currently, students pay ~300 EUR per semester (i.e. for six months). This includes a ticket for public transport in Dresden (bus, tram, ferry, "S-Bahn" suburban train) and regional trains in the Federal State of Saxony. Additionally, students can use a bike rental service all over the city for free for 30 min. The contribution also assures concessions in the university cafeterias and offers benefits (e.g. price reductions) for many cultural and leisure activities in Dresden.
<b>Costs of living</b>	Dresden offers high quality of living at very moderate costs. Currently, students should expect to pay around 850 EUR per month including rent, food, insurance and basic expenses. This figure is relatively low compared to other big German cities.
<b>Funding opportunities within the university</b>	Yes
<b>Description of the above-mentioned funding opportunities within the university</b>	<a href="#">Information on scholarships and funding for students is summarised on a dedicated web page of the TU Dresden.</a>

## Requirements / Registration

<b>Academic admission requirements</b>	Academic admission requirements include the completion of a first vocational university degree recognised in Germany or a qualification from an officially-recognised vocational academy in the field of physics or a closely-related programme of study such as engineering physics (if the course content on experimental and theoretical physics and the knowledge of applied and mathematical methods imparted correspond to the content of the TU Dresden's Bachelor's degree programme in
--	---

physics).

<b>Language requirements</b>	<p>Proficiency in English at the B2 level of the Common European Framework of Reference for Languages</p> <p>If you do not have a certificate of general or subject-specific university entrance qualification with a basic or advanced course in English (or comparable levels), a certificate for admission to higher education completed in English or a higher education graduation certificate completed in English, then you must provide proof of English proficiency by taking an internationally-offered English test and by scoring accordingly (e.g. IELTS: 6.0, online TOEFL: 75, UNICert II).</p>
<b>Application deadline</b>	<p><a href="#">Application deadlines and information on the application procedure are available online.</a></p> <ul style="list-style-type: none"><li>• Application deadline for German applicants and educational residents:<ul style="list-style-type: none"><li>◦ Winter semester: 1 June to 15 September</li><li>◦ Summer semester: 1 December to 15 March</li></ul></li><li>• Application deadline for international EU and non-EU applicants:<ul style="list-style-type: none"><li>◦ Winter semester: 1 April to 15 July</li><li>◦ Summer semester: 1 October to 15 January</li></ul></li></ul> <p>Please consult the <a href="#">study information pages</a> for further details.</p>
<b>Submit application to</b>	<p><b>Online application information:</b></p> <p><a href="#">TU Dresden, Study Information System, Degree programme in Physics (Master's) accredited</a></p>

## Services

<b>Possibility of finding part-time employment</b>	<p>In order to top up their budget, some students may want to look for temporary work in Dresden. If so, different regulations apply for students from EU member states, countries of the European Economic Area (EEA) and Switzerland, and students from outside the European Union and the EEA area. In addition, restrictions on the duration of employment may apply. Professors, lecturers and group leaders involved in the Master's programme may offer students the possibility of working as academic assistants. However, living expenses can be financed only partially through a job as an academic assistant.</p>
<b>Accommodation</b>	<p>It is still relatively easy to find affordable accommodation in Dresden. Accommodation is available either via the "Studentenwerk Dresden" or on the private market. Rent for a single room in a student residence is approx. 250 EUR per month.</p> <p>Private housing can be found online. We recommend that you move into a hall of residence at the beginning of your stay in Dresden. Subsequently, you can look for a place on the private market or in a shared apartment, which is known as a "Wohngemeinschaft" in German.</p>
<b>Career advisory service</b>	<p>TU Dresden offers plenty of counseling and training within its Career Service to help students with finding professional orientation. They offer workshops to equip students with professional skills and help optimise their CV.</p> <p>Additionally, there are special workshops for international students to get to know the German and Saxon job market and network.</p>
<b>Support for international students and doctoral candidates</b>	<ul style="list-style-type: none"><li>• Welcome event</li><li>• Buddy programme</li></ul>

- Tutors
- Cultural and linguistic preparation

## Contact

**Dresden University of Technology**

Faculty of Physics

Prof Dr Arno Straessner

01062 Dresden

✉ [studiendekan.physik@tu-dresden.de](mailto:studiendekan.physik@tu-dresden.de)

🌐 Course website: [https://tu-dresden.de/mn/physik/studium/master?set\\_language=en](https://tu-dresden.de/mn/physik/studium/master?set_language=en)

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

🐦 [https://twitter.com/tudresden\\_de](https://twitter.com/tudresden_de)

🌐 <https://de.linkedin.com/school/tu-dresden/>

📷 <https://www.instagram.com/tudresden>

📺 <https://www.youtube.com/TUDresdenTV>

Last update 17.07.2024 11:11:54

# International Programmes in Germany - Database

[www.daad.de/international-programmes](http://www.daad.de/international-programmes)  
[www.daad.de/sommerkurse](http://www.daad.de/sommerkurse)

## Editor

DAAD - Deutscher Akademischer Austauschdienst e.V.  
German Academic Exchange Service  
Section K23 – Information on Studying in Germany  
Kennedyallee 50  
D-53175 Bonn  
[www.daad.de](http://www.daad.de)

## GATE-Germany

Consortium for International Higher Education Marketing  
[www.gate-germany.de](http://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".

The publication is funded by the German Federal Ministry of Education and Research and by contributions of the participating German institutions of higher education.



Federal Ministry  
of Education  
and Research