



Deutscher Akademischer Austauschdienst
German Academic Exchange Service



Table of Contents

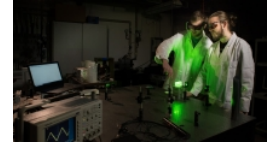
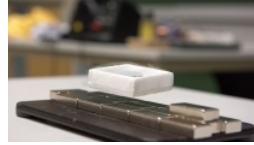
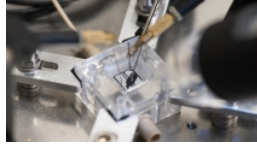
Master's degree	2
Physics • Brandenburg University of Technology Cottbus-Senftenberg • Cottbus.....	2

Master's degree



Physics

Brandenburg University of Technology Cottbus-Senftenberg • Cottbus



Overview

Degree	Master of Science
Teaching language	<ul style="list-style-type: none">English
Languages	All courses are held in English.
Programme duration	4 semesters
Beginning	Winter semester
Application deadline	<ul style="list-style-type: none">Applicants with foreign qualifications for admission to higher education: 15 May for the following winter semesterApplicants with German qualifications for admission to higher education: 31 August for the following winter semester
Tuition fees per semester in EUR	None
Combined Master's degree / PhD programme	No
Joint degree / double degree programme	No
Description/content	<p>The Master's degree in Physics teaches the key skills for a future career as a physicist in a research-intensive and closely mentored study programme. The international Master's programme comprises four semesters with in total 120 credit points. It is divided into an advanced studies phase within the first two semesters and a research phase in the final two semesters.</p> <p>The modules in the advanced studies phase are generically structured in applied, experimental and theoretical subject areas, and content is based on the research priorities of the Institute of Physics and its partner institutions. In particular, our focus is on materials research related to semiconductor devices and functional materials. This comprises identification and characterisation of new materials for future silicon-based nanotechnologies, the development and investigation of innovative semiconductor devices, as integrated sensors, on the basis of new physical concepts and/or materials as well as spectroscopic analysis of interfaces and nanostructures. Moreover, concepts for the integration of new devices into existing technology platforms (e.g., the development of integrated THz radiation sources) and questions regarding technical reliability are major issues of research at the Institute of Physics of the BTU Cottbus-</p>

Senftenberg. These experimental and applied research topics are supplemented by strong activities in theoretical physics in the field of condensed matter theory and non-linear physics.

The strong networking with non-university research institutes such as the Fraunhofer Institute for Photonic Microsystems, the DESY Zeuthen, the Institute for Crystal Growth Berlin and the IHP Frankfurt/Oder allows for a focus across a broad spectrum of research directions and direct contact with the relevant working groups during the advanced studies phase.

The main part of the research phase is the preparation of the thesis. Here students will approach the current state of research in a branch of physics and demonstrate their capacity for independent research, also with the aim of a subsequent doctorate.

For more information, please visit: <https://www.b-tu.de/en/physics-ms/>

Course Details

Course organisation	The international Master's programme comprises four semesters with in total 120 credit points. It is divided into an advanced studies (specialisation) phase within the first two semesters and a research phase in the final two semesters. Within the advanced studies phase in the first year, students acquire the special knowledge in order to accomplish the research project in the second year. The category of modules within each semester is shown in the following table. Students acquire 30 credit points (CP) each semester. » PDF Download
A Diploma supplement will be issued	Yes
International elements	<ul style="list-style-type: none">• International guest lecturers• International comparisons and thematic reference to the international context
Integrated internships	No mandatory internships
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	Apart from a few degree programmes, education offered at the BTU Cottbus-Senftenberg is without tuition fees. However, the university does charge a semester fee of around 135 EUR each semester. This covers costs for the student services organisation (Studentenwerk) and the Student Council (StuRa).

Costs of living Studies abroad often have different types of expenses from the ones you know from your home country. You are responsible for covering your own living expenses. Accommodation and other

essential living expenses will amount to around 600–900 EUR/month. Of course, this amount depends entirely on individual lifestyle. The following list gives you an idea of some fixed and variable costs that you should take into account for your stay in Germany. Monthly costs:

- rent (including utilities): 200–400 EUR
- public transportation: 49 EUR
- groceries: approx. 170 EUR
- health insurance, medical fees, medication: approx. 120 EUR
- miscellaneous (clothing, study materials, other activities): 200–300 EUR
- total: 700–950 EUR

The so-called "Deutschlandticket" allows you to travel using all local public means of transportation throughout Germany.

Funding opportunities within the university	Yes
Description of the above-mentioned funding opportunities within the university	Studying at BTU is mostly free of (study) fees. Because of this, there are only limited scholarship opportunities for international students. The International Relations Office is nonetheless pleased to be able to award a limited number of scholarships to international students already enrolled at BTU. You can find more information on BTU scholarship opportunities on our websites: https://www.b-tu.de/en/international/international-students/during-studies/scholarships

Requirements / Registration

Academic admission requirements	Admission requirements include a first qualifying degree (at least a Bachelor's degree) or a qualification equivalent to this in a programme in Physics or in a Physics-Related field of study. For example, a Bachelor's degree in Electrical Engineering, Technical Physics or Mathematics qualifies students for admission to the international Master's programme in Physics, provided that the basic requirements in Theoretical and Experimental Physics that have been acquired in these programmes, are comparable to the Bachelor's programme in Physics offered at BTU.
Language requirements	<p>A certificate of proficiency in English must be provided. Accepted tests and minimum scores are:</p> <ul style="list-style-type: none"> • TOEFL (79 iBT) • Cambridge Certificate (Advanced or Proficiency, min. grade B) • IELTS (min. 6.0) <p>Applicants with a higher education entrance qualification from Australia, Canada, Ireland, New Zealand, Great Britain (including Northern Ireland) or the United States of America do not have to submit a separate proof of English language skills. Applicants who have completed a secondary level degree in English in Germany or in one of the above-mentioned countries are also exempted from presenting a formal English language certificate.</p> <p>German language skills are not required for admission to this study programme.</p>
Application deadline	<ul style="list-style-type: none"> • Applicants with foreign qualifications for admission to higher education: 15 May for the following winter semester • Applicants with German qualifications for admission to higher education: 31 August for the following winter semester
Submit application to	<p>International applicants must submit their applications via the uni-assist e.V. online application platform: www.uni-assist.de/en/. The application is submitted entirely online. Therefore, no hard copies are required.</p> <p>Please find detailed information on the programme website at www.b-tu.de/en/physics-ms.</p>

Services

Possibility of finding part-time employment

There are [job opportunities](#) both in town and on campus. Nevertheless, please do not come to Germany expecting to be able to finance your entire studies by working. The study load is high, and it is not always easy to find a part-time job. Students from non-European countries are allowed to work either 120 whole days or 240 half days annually. The 120-day rule is not affected by mandatory internships or student assistance jobs at university. Students from EU member countries, the European Economic Area (EEA) and Switzerland can work without restrictions during their studies in Germany.

Accommodation

BTU Cottbus-Senftenberg is a university with three locations where numerous [student dormitories](#) are provided. Students can choose between different room types.

In Germany, it is also very common for students to live alone or with friends. If three or more people share an apartment together, this is called a "WG" in German ("Wohngemeinschaft", which means a shared flat).

Support for international students and doctoral candidates

- Buddy programme



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Thomas Schröder
Prof Dr

The slogan "To control materials means to control technologies" underlines the importance of basic & applied physics for modern knowledge-based societies both today and in the future. This highly dynamic & competitive research & development field will thus offer extremely interesting & well-paid job opportunities for young people in the future. What I like about the Master's degree in Physics at BTU CS is that it offers a well-balanced approach between education in basic and in applied fields.



Study and Research at a High Level in Germany: BTU Cottbus-Senftenberg

At BTU Cottbus-Senftenberg, we are passionately researching the questions of the future. Good teaching conditions are as important to us as conducting outstanding basic research and facilitating effective knowledge transfer into practical applications for industry and medium-sized businesses.

» more:
<https://www.youtube.com/watch?v=cQ7klU54eM4&t=2s>

Brandenburg University of Technology Cottbus-Senftenberg

The BTU welcomes you to start your academic journey!

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Located on three campuses and with about 60 [study programmes](#), BTU Cottbus-Senftenberg offers a broad spectrum of market-oriented programmes as well as traditional degree programmes.

From the natural sciences and engineering to economics, cultural studies, and even health sciences, BTU offers a wide range of courses. Our 13 study programmes taught exclusively in English are very popular among both German and international students from all over the world.

BTU is partnered with over 220 universities throughout the world, which provides students with a multitude of excellent opportunities to spend part of their time [studying or conducting research abroad](#). Furthermore, in cooperation with our [international partner universities](#), BTU offers a wide range of [double-degree and joint-degree programmes](#).



University location

Cottbus is located in the north-east of Germany, between the country's capital, Berlin (100 km), and Dresden (120 km). With a population of approx. 100,000 inhabitants, Cottbus is the second largest city after Potsdam in the federal state of Brandenburg. The Polish border is only approx. 30 km away. The location of Cottbus offers a convenient starting point for trips into the picturesque region of Lower Lusatia. The landscape of Lower Lusatia is characterised by the Spreewald with its small canals and waterways as well as by the Slavonic minority called Sorbs or Wends. Their language, similar to Polish, is still used and spoken in Lower Lusatia. For this reason, many of the road signs and informational boards in Cottbus and the surrounding region are written in both Sorbian and German. Cottbus gained importance as a trade centre in the 12th century. Parts of the original city wall from the 14th century as well as the beautiful townhouses around the old market square are proof of the city's early splendour. Additionally, the city is characterised by buildings from the "Wilhelminian" times of rapid industrial growth in Germany, which occurred towards the end of the 19th century. The city that first rose to prominence with its cloth and linen weaving industry soon evolved into a growing centre of brown coal mining. Today, Cottbus is in the midst of a structural transformation. The BTU supports this development with its engagement in the [Lausitz Science Park](#) megaproject, which aims to build an appealing innovation landscape.

Senftenberg is the centre of the Lusatia Lake District. Former excavation and mining pits have been flooded in order to create the largest artificial lake system in Europe, with a total of 23 large lakes. The water sports area "Senftenberger See", with its water surface of 1,300 hectares, offers exceptional sailing and surfing opportunities, and it is suitable for all kinds of water sports. Senftenberg has thus become a tourist attraction within the region.

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🌐 Course website: <https://www.b-tu.de/en/physics-ms/>

📘 <https://www.facebook.com/btucs/>

🐦 https://twitter.com/BTU_CS

🌐 <https://www.linkedin.com/school/btu-cottbus-senftenberg/>

📷 <https://www.instagram.com/btucs/>

📺 <https://www.youtube.com/c/btucottbussenftenberg>

Last update 04.07.2024 13:28:40

International Programmes in Germany - Database

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Editor

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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".

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