



Deutscher Akademischer Austauschdienst
German Academic Exchange Service



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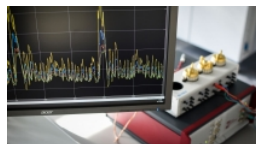
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Master's degree



Battery Materials and Technology

University of Bayreuth • Bayreuth



Overview

Degree	Master of Science
Teaching language	<ul style="list-style-type: none">English
Languages	Most courses are held in English. Participants can choose to write their Master's theses in English or German.
Full-time / part-time	<ul style="list-style-type: none">full-time
Programme duration	4 semesters
Beginning	Winter and summer semester
Application deadline	Application for EU citizens 1 April to 15 July (winter semester) 1 October to 15 January (summer semester) Application for non-EU citizens 1 April to 15 July (winter semester) 1 October to 15 January (summer semester)
Tuition fees per semester in EUR	None
Combined Master's degree / PhD programme	No
Joint degree / double degree programme	No

Description/content

Do you want to pursue a career in the rapidly evolving fields of battery technology, sustainable energy storage and electromobility? Graduate with a Master's degree in "Battery Materials and Technology" and develop the next generation of battery materials!

The first of its kind, this Master's programme at the University of Bayreuth is taught in English and aims at training national and international professionals in the field of battery technologies along

the entire value chain starting from battery materials and electrochemistry up to battery packs up to battery management systems. These qualifications are currently in high demand on the job market.

"Battery Materials and Technology" has a scientific orientation and is well suited for applicants who want to pursue a PhD in our cutting edge research facilities as a follow up. Benefit from the close link to the ["Bavarian Centre for Battery Technology" \(BayBatt\)](#) and be part of the next generation of highly qualified battery developers!

Course Details

Course organisation

The Master's degree programme takes four semesters (two years).

In their first semester, students take alignment modules, taking into account their previous education and the areas in which they have not yet gained sufficient familiarity. Considering the subject breadth, the first semester also provides students with battery-specific basic knowledge and initial interdisciplinary in-depth knowledge in the areas of battery system technology, battery materials, and electrochemistry.

In the compulsory curriculum of their second semester, all students extend their knowledge of the material and system side of the battery as well as the internal processes within a battery cell in order to gain an overall understanding of the battery. Meanwhile, the compulsory elective modules allow individual in-depth to pursue your specialisation.

The third semester is characterised by the joint seminar with the related degree programme in "Batterietechnik" and the research modules. It gives students insight into our current top-notch research and allows them to apply what they have learned.

The programme concludes with the Master's thesis at our research facilities with superb instruments for analytical and preparative purposes.

A Diploma supplement will be issued

Yes

International elements

- International guest lecturers
- Courses are led with foreign partners
- Projects with partners in Germany and abroad
- International comparisons and thematic reference to the international context

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

In Germany, students at all higher education institutions pay a semester contribution. This payment (University of Bayreuth: 142.85 EUR per semester) has nothing to do with tuition fees; rather, it covers your contributions to student services and the student government. At the

University of Bayreuth (which combines the campus in Bayreuth and our Faculty VII located in Kulmbach), it includes a "semester ticket" that allows you to use public transport in the region.

Costs of living

The cost of living in Germany, e.g. accommodation, food, clothing and recreational activities, is about average compared to other European countries. Living expenses are significantly lower than in countries like Denmark, Luxembourg or Switzerland, but they are rather high compared to countries like Poland, the Czech Republic or Italy. Compared to other large German cities, such as Munich, Berlin or Hamburg, Bayreuth's low cost of living and affordable housing make the city and the region particularly attractive to young people and families. The DAAD website will tell you what living expenses to expect in Germany: <https://www.daad.de/deutschland/nach-deutschland/voraussetzungen/en/9198-financing/>.

Funding opportunities within the university

Yes

Description of the above-mentioned funding opportunities within the university

Scholarships for international students: International students and doctoral researchers have the opportunity to apply to the [International Office](#) for a study grant. Limited funding from the State of Bavaria and the DAAD is available for this purpose. The application deadline for the **winter semester is 31 August and for the summer semester 28 February**. All grants can be awarded for up to two semesters.

Unfortunately, first-semester students cannot be funded, i.e. applications cannot be submitted until the second semester of study for [funding](#) starting in the third semester of study. Above all, academic achievements from the previous semester are decisive for the evaluation of the application.

Requirements / Registration

Academic admission requirements

A degree in a Bachelor's programme in the subject areas of Engineering Science, Environmental & Resource Technology, Materials Science & Engineering, Electrical Engineering & Information System Technology, Chemistry or Physics at the University of Bayreuth, or an equivalent degree from another university

Applications may already be submitted before completion of the Bachelor's degree programme. However, a total of at least 150 credits are required by the time of application.

Language requirements

ENGLISH: level B2; **GERMAN:** level A1. Applicants who cannot provide the German A1 language certificate will be enrolled on the condition that they submit it by the end of the second semester at the latest.

Application deadline

Application for EU citizens

1 April to 15 July (winter semester)
1 October to 15 January (summer semester)

Application for non-EU citizens

1 April to 15 July (winter semester)
1 October to 15 January (summer semester)

Submit application to

Online application through CAMPUSonline
You can find further details via [this link](#).

Services

Possibility of finding part-time employment

There are many ways for international students to earn money while they study, but there are some restrictions. For more detailed information, please visit the [DAAD website](#).

The [University of Bayreuth's Career Services team](#) provides a central interface between student and professional life. The team offers guidance and support to students of all subjects with regard to starting their [careers](#).

For information regarding the **Corona virus**, please visit our [website](#) and also see <https://www.daad.de/en/coronavirus/>.

Accommodation

Accommodation for students

Bayreuth and Kulmbach have a number of student dormitories (both private dormitories and dormitories offered by the Association for Student Affairs) and a vast array of private rooms available. Under no circumstances should you assume that you will be assigned a room in the student dormitories! You will need to actively search for a room on your own – either in a private dormitory or on the private market.

More information regarding accommodation for students is available here: <https://www.uni-bayreuth.de/en/studies/accomodation/index.html>. Please also read the [DAAD's information](#).

Accommodation for international guests

All other international guests are requested to register via the [Welcome Services Database \(WelSe\)](#).

Accommodation for short visits

For short visits, we recommend searching for accommodation on Airbnb. In addition, a limited number of apartments are available in the [Alexander von Humboldt Guest House](#).

Support for international students and doctoral candidates

- Welcome event
- Tutors
- Visa matters

General services and support for international students and doctoral candidates

At our cutting edge research facility, students in the Master's degree programme can be financially supported by individual research fellowships. Fellowships are sufficient to obtain a visa to enter Germany for study, and they cover living expenses.

Applications for other financial support for study in the programme through private or public organisations are encouraged and will be supported by us.



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Michael Danzer
(Director of the
Bavarian Centre for
Battery Technology,
BayBatt)
Prof Dr-Ing



Corporate video of the University of Bayreuth

It all begins with a dream – a search for knowledge and insights, important changes, every great idea. Welcome to the University of Bayreuth!

» more:

<https://www.youtube.com/watch?v=vWle6FHIR5k>

We want to contribute to the success of the energy transition not only through excellent research but also through excellent teaching. That is why we are looking forward to excellent applicants who are working with us on the next generation of batteries at our cutting edge research facility.

University of Bayreuth

International, innovative, and interdisciplinary in research and teaching

Top-notch research, state-of-the-art teaching methods, international influences, diversity, and a springboard to a successful career – these are all things the University of Bayreuth stands for.

The University of Bayreuth is a dynamic campus university with currently about 13,000 students. Beyond the interdisciplinary research focus and excellence in teaching, the university has a clear vision of social responsibility and entrepreneurship. In the middle of Kulmbach, our new satellite campus unites the perspectives of natural science, economics, law, social sciences, and behavioural science in one place in a way that has not yet been seen in Germany.

We have a close network of strategically selected international research partners, and we have strategic partnerships with universities around the globe. A wide range of innovative BA, MA and PhD programmes as well as our international summer schools are conducted in English. There are presently around 1,770 international students from more than 100 countries on the Bayreuth and Kulmbach campuses. Focus areas in research include Nonlinear Dynamics, Polymer and Colloid Science, Molecular Biosciences, Ecology and Environmental Sciences, New Materials, African Studies, High Pressure and High Temperature Research, Cultural Encounters and Transcultural Processes, Innovation and Consumer Protection, Food and Health Sciences, Energy Research and Energy Technology, Governance and Responsibility.

Our university has an outstanding staff-to-student ratio. Our high performance levels, multidisciplinary collaborations and scientific excellence result in high-ranking positions. In the 2021 THE ranking of “475 under 50”, the University of Bayreuth once again achieved a top position among the best universities in Germany. We have proven expertise in campus and curriculum internationalisation, which is confirmed by the results of the extended internationalisation audit conducted by the German Rectors’ Conference, a close and successful project cooperation with the German Academic Exchange Service (DAAD) and a number of Alexander von Humboldt Awards for our international management and service.

Welcome to our one-of-a-kind campus in Bavaria!

It is both the heart of our university and a source of inspiration. It is where friendships are made, collaboration is initiated, and ideas are

conceived, ensuring that our university remains a beacon of innovation. Scientific exchange profits tremendously from the wide variety of disciplines our communicative campus brings together.

Coronavirus

Be sure that there is a **comprehensive and high-quality range of courses** in all degree programmes that will enable students to successfully begin and continue their studies – on campus or online.



University location

Welcome to Bavaria!

Seventy-six thousand people from **145 nations** chose the city of Bayreuth as their new home, and those numbers are steadily rising. Because of its 13,000 students, Bayreuth is the **third-youngest city in Germany**. Living here means not getting stuck in traffic jams every morning. The short distances in Bayreuth allow you to leave your car at home and to walk or ride your bike to work and to campus.

Career & Networking

The [Welcome Service](#) at the University of Bayreuth is here to assist you with any questions regarding living and [working](#) in the region of Bayreuth. The team of our International Office provides guidance and support for all international students, scholars, and their families before, during and after their stay at the University of Bayreuth. The aim is to ensure a quick, trouble-free and thus successful start as well as an unforgettable stay on our friendly campus in Bayreuth and Kulmbach.

A good climate for your entrepreneurial spirit

The University of Bayreuth takes its role as a regional motor of innovation very seriously. The [Office of Entrepreneurship & Innovation](#) was set up to help students gain [the necessary qualifications](#) in the area of entrepreneurial and innovative thinking and acting. In doing so, we nurture our students' willingness and ability to start their own companies. Our [Adviser for Start-Ups](#) provides start-ups and prospective start-ups with confidential guidance and support. Strong **innovation and research** institutions combined with high-performance medium-sized companies make for a steady rise in workforce and a guarantee for job security.

Your new home away from home

Bayreuth and Kulmbach offer a fast variety of childcare services as well as affordable **living space**. Step outside your front door and enjoy the **recreational activities**. Scenic northern Bavaria is great for sports activities: cycling, hiking, mountain-climbing, canoeing, rafting, and skiing are all excellent ways to enrich your leisure time. However, if you do happen to crave the feel of a bigger city now and then, Nuremberg is only a one-hour train ride away and Munich is only two-and-a-half hours away. You can reach Berlin in four hours by car or bus and Leipzig in half that time.

Have a great start. We look forward to meeting you!

Contact

University of Bayreuth

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🌐 Course website: <https://www.uni-bayreuth.de/en/master/battery-materials-technology>

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

🐦 <https://twitter.com/unibt>

🌐 <https://de.linkedin.com/school/university-of-bayreuth/>

📷 <https://www.instagram.com/uni.bayreuth/>

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International Programmes in Germany - Database

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

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DAAD - Deutscher Akademischer Austauschdienst e.V.
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www.daad.de

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Consortium for International Higher Education Marketing
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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