

Deutscher Akademischer Austauschdienst German Academic Exchange Service

# INTERNATIONAL PROGRAMMES

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# Master's degree

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## **Experimental Geosciences (MSc)**

University of Bayreuth • Bayreuth



### Overview

Degree	Master of Science
Teaching language	• English
Languages	A complete study programme in English is possible. Not all selective subjects are taught in English.
Programme duration	4 semesters
Beginning	Winter and summer semester
Application deadline	15 June for the winter semester 15 December for the summer semester
Tuition fees per semester in EUR	None
Combined Master's degree / PhD programme	No
Joint degree / double degree programme	No
Description/content	The MSc programme in Experimental Geosciences pursues training and research in one of the central areas in Earth Sciences: the characterisation of physical and chemical properties of Earth materials to advance the understanding of processes in and properties of the solid earth. Through the approach based on earth materials the programme in Experimental Geosciences encompasses a number of traditional scientific fields: mineralogy, crystallography, solid state physics, inorganic chemistry, material sciences, geo- and cosmochemistry, as well as geophysics. Only by integrating these diverse subfields in one study programme and research effort one can advance the understanding of the solid Earth. The programme is built on the scientific and experimental expertise of the 'Bayerisches Geoinstitut'' (Bavarian Geoinstitute, BGI) that combines: Analytical methods to characterise samples Synthesis methods at high pressure and temperature In-situ methods for measuring physical properties Theory and models to simulate material properties

In the MSc programme students will be trained in many of these techniques. They will build up a solid expertise in Earth materials research that is also applicable in many fields of applied materials research.

The laboratory-based work is supplemented by literature and research seminars that prepare the students to find literature on a subject and to critically evaluate scientific literature.

### **Course Details**

Course organisation	The programme is organised in four major module areas, and encompasses a total of 120 ECTS credit points (CP). The module areas are:
	A. Experimental Methods (20 CP)
	B. Research Techniques, including three one-semester long research projects with research reports (57 CP)
	C. Optional/elective courses (11 CP) in any of the following subjects:
	<ul> <li>The solid Earth</li> <li>Solid state physics</li> <li>Material sciences and catalysis</li> <li>Information technology</li> <li>Crystallography</li> <li>Environmental geochemistry</li> </ul> D. Master's thesis (26 CP) with presentation of work in Institute Seminar (6 CP) in the final semester
	of the curriculum. After completion of the Master's thesis, the study programme concludes with an oral exam.
	» PDF Download
A Diploma supplement will be issued	Yes
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

Description of the abovementioned 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**

Yes

Academic admission requirements	A Bachelor of Science (BSc) or equivalent in a natural science or a related engineering field is required, with at least a grade of good (2.5 in the German grading system).
	<ul> <li>For an application, the following material must be submitted:</li> <li>Application form, which can be found on the website of the programme</li> <li>Official BSc (or equivalent) degree certificate</li> <li>Official transcript of BSc studies with a list of courses taken and grades obtained</li> <li>If the BSc will be obtained only between the application date and the start of the MSc studies, an official certificate of the classes attended and the grades obtained must be</li> </ul>
	<ul> <li>provided. The BSc certificate must be presented when registering for the programme.</li> <li>Demonstration that during the applicant's study course work in physics/geophysics and in chemistry/geochemistry has been performed, each with a minimum of 8 credit points</li> <li>CV in tabulated form</li> <li>Evidence of strong command of English (details see below)</li> <li>Statement explaining your interest in studying "Experimental Geosciences", not to exceed two pages (12pt font, in English)</li> <li>Contact information for a former supervisor: Your former supervisor should be available to send a letter of reference on your behalf to the university.</li> </ul>
Language requirements	<ul> <li>Applicants must demonstrate English proficiency by one of the following:</li> <li>A language test equivalent to at least the level B2 of the Common European Framework of Reference for Languages</li> <li>Complete BSc studies in English</li> <li>A BSc thesis completed in English</li> <li>High School studies in English</li> </ul>
Application deadline	15 June for the winter semester 15 December for the summer semester
Submit application to	E-mail: g.steinle-neumann@uni-bayreuth.de

## 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 teamprovides 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	<ul> <li>Accommodation for students</li> <li>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.</li> <li>More information regarding accommodation for students is available here:https://www.unibayreuth.de/en/studies/accomodation/index.html. Please also read the DAAD's information.</li> <li>Accommodation for international guests</li> <li>All other international guests are requested to register via the Welcome Services Database (WelSe).</li> <li>Accommodation for short visits</li> <li>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.</li> </ul>
Support for international students and doctoral candidates	<ul><li>Accompanying programme</li><li>Visa matters</li></ul>
Supervisor-student ratio	1:3



### 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

# University of Bayreuth



The University of Bayreuth is one of the most successful young universities in Germany. © 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-kindcampus 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 andworking 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 & Innovationwas 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

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- f https://www.facebook.com/UniBayreuth/
- https://twitter.com/unibt
- in 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

#### Editor

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#### GATE-Germany

Consortium for International Higher Education Marketing www.gate-germany.de

#### Disclaimer

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