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Environmental Chemistry (MSc) • University of Bayreuth • Bayreuth ....................................................... 2
Master's degree

Environmental Chemistry (MSc)
University of Bayreuth • Bayreuth

Overview

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<tr>
<th>Degree</th>
<th>Master of Science</th>
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</thead>
<tbody>
<tr>
<td>Teaching language</td>
<td>English</td>
</tr>
<tr>
<td>Languages</td>
<td>All courses are in English, and the Master's thesis will be written in English.</td>
</tr>
<tr>
<td>Programme duration</td>
<td>4 semesters</td>
</tr>
<tr>
<td>Beginning</td>
<td>Winter semester</td>
</tr>
<tr>
<td>More information on beginning of studies</td>
<td>Typically middle of October each year</td>
</tr>
<tr>
<td>Application deadline</td>
<td>15 June to start in the winter semester</td>
</tr>
<tr>
<td>Tuition fees per semester in EUR</td>
<td>None</td>
</tr>
<tr>
<td>Combined Master’s degree / PhD programme</td>
<td>No</td>
</tr>
<tr>
<td>Joint degree / double degree programme</td>
<td>No</td>
</tr>
<tr>
<td>Description/content</td>
<td>Environmental Chemistry addresses today’s global challenges caused by increasing industrialisation and over-exploitation of natural resources. Contamination is seldom restricted to one compartment (air, soil, or water), but affects whole ecosystems and often has a considerable political dimension. The key to future sustainable resource management, current impact prediction, and prudent clean-up of past contaminated sites is a solid understanding of environmental chemistry. The internationally-oriented Master's programme in Environmental Chemistry is interdisciplinary in nature. It is structured in individual modules that focus on the environmental compartments air (A), soil (S), and water (W) as well as on chemical modelling, analytics, and toxicology (chemistry and analytics C), experimental biogeochemistry (EB) and isotope geochemistry (ISO). Additionally, integrative and methodological modules (M) and electives (E) are offered. In the two-year Master's programme, you learn to address global environmental chemical</td>
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</table>
challenges with knowledge, skills, and experience from an application-oriented and strongly interdisciplinary perspective. Aside from the core understanding of processes in air, soil, and water, subjects include inorganic and organic chemistry, microbiology, toxicology, ecosystem analysis, and human-environment interactions. Exercises in small groups enable hands-on experience of the front-end analytical techniques in the individual research groups and development of solution-oriented thinking and creativity. You are trained in critical reflection, abstraction, and logical argumentation as well as oral and written communication. Different perceptions of environmental challenges by students from different countries at different stages of development and with different cultural and socio-economic backgrounds are integrated to sharpen understanding of international contexts.

A detailed module handbook is provided for an overview of content and the qualification objectives of all modules, as well as the credits to be acquired as a measure of the workload and a description of the type of assessment components required for the award of credits.

Course Details

Course organisation
The MSc degree programme in Environmental Chemistry should be undertaken in four semesters (full-time) or eight semesters (part-time). It requires attendance and active participation and concludes with the MSc thesis. All courses are offered on an annual basis, and new students can only enter the programme in the winter semester. The students earn 30 ECTS per semester, 120 ECTS in total.

The programme is structured in individual modules that focus on the environmental compartments air (A), soil (S) and water (W), as well as on chemical modelling, analytics and toxicology (chemistry and analytics C), experimental biogeochemistry (EB) and isotope geochemistry (ISO). Additionally, integrative and methodological modules (M) and electives/internships (E) are offered. Each module is equivalent to 5 ECTS, whereas the MSc thesis is equivalent to 30 ECTS. The compulsory part of the degree programme in the first semester focuses on lectures, accompanied by practical courses to compensate for the potentially non-uniform level of education. In the second and third semester, the fraction of practical courses increases depending on the selection of subjects that are often taught in project-like modules and, in particular in the third semester, in seminars to stimulate and further intensify scientific communication and discussion. Graduates receive a Master of Science (MSc) degree.

International elements
- Projects with partners in Germany and abroad

Integrated internships
Internships can be integrated into the E-modules.

Course-specific, integrated German language courses
No

Course-specific, integrated English language courses
No

The course of study can be taken entirely online
No

Digital learning and teaching modules
- http://elearning.uni-bayreuth.de

Description of e-learning elements
Online platform to provide course material, supplementary information, chats, votes, wikis

» PDF Download
**Participation in the e-learning course elements is compulsory**

No

**Can ECTS points be acquired by taking the online programmes?**

No

**Can the e-learning elements be taken without signing up for the course of study?**

Yes

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**Costs / Funding**

<table>
<thead>
<tr>
<th>Tuition fees per semester in EUR</th>
<th>None</th>
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</table>

**Semester contribution**

In Germany, students at all higher education institutions must pay a semester contribution. This payment (at the University of Bayreuth: 107.81 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 new 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 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/nachdeutschland/voraussetzungen/en/9198-financing/

**Funding opportunities within the university**

Yes

**Description of the above-mentioned funding opportunities within the university**

Scholarships awarded via the International Office

You can apply for the scholarships (monthly payments: 300 EUR) starting in the third semester of study; scholarship funding cannot be provided during the first two semesters of study. You must submit the following documents next to your application:

- Enrolment certificate
- Copy of passport and residence permit
- Letter of recommendation from an instructor at the University of Bayreuth
- Evidence of coursework completed at the University of Bayreuth, including grades
- CV


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**Requirements / Registration**

**Academic admission requirements**

A Bachelor’s degree from a higher education institution in Germany or abroad in biology, chemistry, geology, forestry, agricultural sciences, hydrology, ecological engineering, limnology, meteorology, physical geography, environmental physics, environmental economics, environmental law, or an equivalent degree that was completed with a total of at least 20 credit points in physics, biology, and chemistry along with at least 20 credit points in environmental science and a final grade of "good" (2.5) or better.

<table>
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<tr>
<th>Language requirements</th>
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<tr>
<td>Applicants who did not gain their higher education entrance qualification or initial degree in the English language can demonstrate their English language skills by way of a thesis or by way of a B2-level language certificate according to the Common European Framework. Proof of German language at A1 level has to be shown by the end of the second semester.</td>
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</table>

Application deadline

15 June to start in the winter semester

Submit application to

Application is only possible through our online portal at: [http://www.bayceer.uni-bayreuth.de/environchem/en/reg/5001/grade_check.php](http://www.bayceer.uni-bayreuth.de/environchem/en/reg/5001/grade_check.php)

(Please do not send any documents by mail or e-mail!)

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### Services

#### Possibility of finding part-time employment

There are many ways for international students in Germany to earn money while they study, for example, as wait staff, academic assistants or private tutors, but there are some restrictions. For more detailed information, please visit: [https://www.daad.de/deutschland/in-deutschland/arbeit/en/9148-side-jobs/](https://www.daad.de/deutschland/in-deutschland/arbeit/en/9148-side-jobs/).

#### 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: [www.uni-bayreuth.de/en/studies/accommodation/index.html](http://www.uni-bayreuth.de/en/studies/accommodation/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.

#### Specific specialist or non-specialist support for international students and doctoral candidates

- Welcome event

#### Supervisor-student ratio

Approx. 1:4 for courses, 1:1 for thesis
The University of Bayreuth campus

© The University of Bayreuth

Image Video of the University of Bayreuth

Welcome to the University of Bayreuth! This video will give you an idea what studying, working, and living is like on campus.

» more:
https://www.youtube.com/watch?v=buDSVfVVLIM

University of Bayreuth

International, innovative, and interdisciplinary in research and teaching

The University of Bayreuth is a dynamic campus university with about 13,500 students. Beyond the interdisciplinary research focus and excellence in teaching, the university has a clear vision of social responsibility and entrepreneurship.

We have a close network of strategically selected, international research partners and 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. Presently there are around 1,770 international students from more than 100 countries on campus. 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-student ratio. Our high performance levels, multidisciplinary collaborations and scientific excellence result in high ranking positions. In the 2019 THE ranking “151 under 50”, the University of Bayreuth 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. That is probably why the University of Bayreuth has been able to celebrate so many awards and honours for its scholarly accomplishments.

University location
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Universitätsstraße 30
95447 Bayreuth
Germany

Contact
University of Bayreuth
Environmental Geochemistry

Prof Dr Britta Planer-Friedrich

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95447 Bayreuth

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environchem@uni-bayreuth.de
Course website: http://www.environchem.uni-bayreuth.de/

https://www.facebook.com/UniBayreuth
https://twitter.com/unibt
https://www.linkedin.com/school/university-of-bayreuth
https://www.instagram.com/uni.bayreuth/

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

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Consortium for International Higher Education Marketing
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Disclaimer
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