

Deutscher Akademischer Austauschdienst German Academic Exchange Service

# INTERNATIONAL PROGRAMMES

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## Master's degree



Hydro Science and Engineering

Dresden University of Technology • Dresden

#### Overview

Degree	Master of Science in Hydro Science and Engineering (MSc)
Teaching language	• English
Languages	Courses are held in English. The Master's thesis is to be written in English.
Programme duration	4 semesters
Beginning	Winter semester
Application deadline	<ul> <li>For the Master's course:</li> <li>15 July for all EU citizens</li> <li>31 May via uni-assist for all other international students</li> <li>For DAAD scholarships (one year prior to intended start):</li> <li>31 August at German Embassy</li> <li>15 October at the university directly</li> <li>Applications have to be submitted in English.</li> </ul>
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 will convey knowledge about protection and management of water resources in different climatic zones, as well as design and construction of water supply and wastewater treatment. The study course is divided into basic and advanced courses during the first three semesters. The final semester is dedicated to the Master's thesis. During the basic courses, 30 credits are gained. All students attend lectures on statistics and climatology. In addition, two out of three modules in geodesy, hydromechanics and hydraulics, and two out of three modules in soils, ecology and hydrochemistry have to be selected. Students with a background in natural or environmental sciences should take classes in hydraulic engineering and hydromechanics. Students with a background in civil engineering should rather study ecology and water chemistry. For advanced courses, students choose modules corresponding to 50 credits out of the following catalogue:

- Aquatic Ecology & Ecotoxicology (5 credits)
- Circular Economy (5 credits)
- Climate Change (5 credits)
- Climate Systems & Climate Modelling (5 credits)
- Drinking Water Supply (5 credits)
- Flood Risk Management 1 & 2 (20 credits)
- Ground Water (5 credits)
- Hydrodynamics (5 credits)
- Integrated Water Resources Management 1 & 2 (5 credits each)
- International Water Issues (5 credits)
- Modelling of Wastewater systems (5 credits)
- Water Quality and Water Treatment (5 credits)
- Soil Water (5 credits)
- Urban Water 1 & 2 (10 credits)
- Watershed Management 1 & 2 (10 credits)
- Communication and Conflict Management (5 credits)
- Internship (5 credits)

In addition, a study project (10 credits) must be completed.

#### **Course Details**

Course organisation	The courses follow a modular structure. The individual courses take the form of lectures, seminars, exercises, practical training, project work, specialist excursions, workshops, and student tutorials. The programme is subdivided into a basic course for one semester and a three-semester advanced course. Two mandatory modules plus twice two modules selected out of three, respectively, make up the basic course. The advanced course consists of two mandatory modules plus five electives to be chosen from ten possible modules (see description of content), which allows the student to specialise, putting emphasis on topics of individual importance. The preparation of a Master's thesis (five months) including a colloquium is the final part of the course.
A Diploma supplement will be issued	Yes
Certificates for specific modules are awarded	Yes
International elements	<ul> <li>International guest lecturers</li> <li>Projects with partners in Germany and abroad</li> <li>International comparisons and thematic reference to the international context</li> </ul>
Integrated internships	An optional module allows students to receive 5 ECTS credits for an internship.
Special promotion / funding of the programme	<ul> <li>DAAD</li> <li>DAAD development-related postgraduate course</li> <li>ERASMUS+</li> </ul>
Name of DAAD funding programme	EPOS: Development-Related Postgraduate Studies ERASMUS+: GroundwatCH, Joint Master Programme in Groundwater and Global Change ERASMUS+: Flood Risk Management, Joint Master Programme in Flood Risk Management
Course-specific, integrated German language courses	Νο

### Costs / Funding

Tuition fees per semester in EUR	None
Semester contribution	Currently, students pay ~290 EUR per semester (i.e. for six months). This includes the Deutschland- Ticket, a ticket for most local public transport (bus, tram, ferry, S-Bahn) and regional trains in all of Germany incl. Dresden. Additionally, students can use a bike rental service all over the city of Dresden for free for 30 minutes. The contribution also assures concessions in the university cafeterias and offers benefits (e.g. price reductions) for many cultural and leisure activities.
Costs of living	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.
Funding opportunities within the university	Yes
Description of the above- mentioned funding opportunities within the university	Information on scholarships and funding for students is summarised ona dedicated web page of the TU Dresden.

### **Requirements / Registration**

Academic admission requirements	Applicants must hold a Bachelor's degree (graduation better than average) in natural sciences or engineering disciplines or similar, with a standard course length of at least six semesters. Good basic knowledge of mathematics and other natural sciences is required. Professional experience is not essential for the course but appreciated and treated as an additional criterion.
Language requirements	<ul> <li>Applicants must prove sufficient proficiency in English. The most widely recognised international test:</li> <li>IELTS: required level minimum 6.5 and 6.0 in all categories</li> <li>Certificates of equivalent standard will be considered. In this context, command of English is mandatory at level C1 (very good upper intermediate level) according to the Common European Framework of Reference for Languages.</li> </ul>
Application deadline	<ul> <li>For the Master's course:</li> <li>15 July for all EU citizens</li> <li>31 May via uni-assist for all other international students</li> <li>For DAAD scholarships (one year prior to intended start):</li> <li>31 August at German Embassy</li> </ul>

•	15 October	at the	university	directly
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#### Applications have to be submitted in English.

Submit application to	DAAD applications to: Technische Universität Dresden Environmental Sciences, Meteorology, Hydro Science and Engineering Dr S. Hahn-Bernhofer 01062 Dresden Germany
	For upload see https://tu-dresden.de/hydro/ma-hse. For all other applications see: https://tud.de/online-bewerbung.

### Services

Possibility of finding part- time employment	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.
Accommodation	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. 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.
Career advisory service	TU Dresden offers plenty of counselling 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. Additionally, there are special workshops for international students to get to know the German and Saxon job market and network.
Support for international students and doctoral candidates	<ul> <li>Welcome event</li> <li>Buddy programme</li> <li>Tutors</li> <li>Specialist counselling</li> </ul>

### Contact

#### Dresden University of Technology

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   Course website: https://tu-dresden.de/hydre/n
- Course website: https://tu-dresden.de/hydro/ma-hse
- f https://www.facebook.com/TUDresden
- https://twitter.com/tudresden\_de
- in https://www.linkedin.com/groups/9506028/
- https://www.instagram.com/tudresden
- https://www.youtube.com/TUDresdenTV

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### International Programmes in Germany - Database

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

#### GATE-Germany

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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