

Deutscher Akademischer Austauschdienst German Academic Exchange Service

# INTERNATIONAL PROGRAMMES

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## Master's degree



# WAREM Water Resources Engineering and Management (WAREM)

University of Stuttgart • Stuttgart











## Overview

| Degree                                      | Master of Science (MSc)  |
|---|--|
| In cooperation with                         | <ul> <li>University Chalmers, Göteborg, Sweden</li> <li>Universiti Teknologi (UiTM), Shah Alam, Malaysia</li> <li>A Master's double degree programme can be offered for those who are interested.</li> </ul> |
| Teaching language                           | • English  |
| Languages                                   | The WAREM modules are all taught in English. However, if students are interested in attending a module offered from the university that is taught in German, they can choose this module as an elective.     |
| Full-time / part-time                       | • full-time  |
| Programme duration                          | 4 semesters  |
| Beginning                                   | Winter semester  |
| Application deadline                        | 15 February for the following winter semester, both for non-EU and EU applicants   |
| Tuition fees per semester in<br>EUR         | Varied   |
| Additional information on tuition fees      | EU citizens do not pay tuition fees, whereas non-EU citizens pay a tuition fee of 1,500 EUR per semester.  |
| Combined Master's degree /<br>PhD programme | Νο   |
| Joint degree / double degree<br>programme   | Yes  |

#### Description/content

The continuously increasing water needs of a growing world population are having a progressively adverse impact upon the Earth and its natural water resources. Sustainable water resources development within environmental and social limitations requires both qualified engineers and scientists as well as global scientific and professional cooperation. WAREM's internationally recognised Master of Science programme was specifically developed to satisfy these demands, taking into account international concerns regarding climatic, demographic and politically influential constraints and changes.

The courses offered allow students to acquire interdisciplinary knowledge in the following main topics:

- Groundwater Resources Management and Geohydrology
- Hydraulic Engineering and River Basin Management
- Sanitary Engineering and Water Quality Management
- Stochastic Simulation and Safety Research for Hydrosystems

Furthermore, the programme profits from the university's excellent research facilities in the water sector, such as the Research Facility for Subsurface Remediation (VEGAS) – the only one of its kind in Germany – or the Hydraulic Laboratory (VA) with a floor of 1,600 m<sup>2</sup> that allows the construction of physical model experiments on topics related to hydraulic engineering and water resources management. The Teaching and Research Sewage Treatment Plant (LFKW) in Büsnau is affiliated with the Institute for Sanitary Engineering, Water Quality and Solid Waste Management (ISWA).

The programme offers engaging excursions to hydropower plants, pumping stations, river management sites and other relevant water resources sites in Germany and the neighbouring countries. These excursions include as well opportunities to hike and sightsee in nearby cultural centres.

WAREM maintains close cooperation with a number of national and international companies and research institutes worldwide.

### **Course Details**

| Course organisation                    | <ul> <li>Water Resources Engineering and Management (WAREM) is a two-year Master of Science programme beginning in the winter semester of each year. The programme consists of three inclass semesters and a semester designated for research and thesis work.</li> <li>The students have to complete four mandatory modules (21 ECTS), two mandatory key qualification subjects or German language courses up to level A 2.1 CEFR (6 ECTS), five selectable mandatory modules (out of nine) (30 ECTS), and six elective modules (33/36 ECTS). Students must obtain at least 72 ECTS before starting the Master's thesis (30 ECTS).</li> <li>The modules consist of lectures, tutorials and seminars, combined with practical work and excursions. Thus, students get a thorough overview and can easily find their field of interest and choose a specialisation.</li> <li><b>PDF Download</b></li> </ul> |
|--|--|
| A Diploma supplement will<br>be issued | Yes  |
| International elements                 | <ul> <li>International guest lecturers</li> <li>Integrated study abroad unit(s)</li> <li>Language training provided</li> <li>Training in intercultural skills</li> <li>Study trips</li> <li>Courses are led with foreign partners</li> <li>Projects with partners in Germany and abroad</li> <li>International comparisons and thematic reference to the international context</li> </ul>  |

| Integrated study abroad<br>unit(s)                      | <ul> <li>A semester abroad is recommended, especially for German students.</li> <li>A study period or an internship outside of Germany is optional for all students.</li> <li>For the double degree programmes with Chalmers University of Technology, Göteborg,<br/>Sweden or Universiti Teknologi (UiTM), Shah Alam, Malaysia, special study macro-plans<br/>have been developed. Students joining these programmes are required to study two<br/>semesters in Germany and two semesters at Chalmers or UiTM. These macro-plans ensure a<br/>compatible study programme.</li> </ul> |
|---|---|
| Integrated internships                                  | No compulsory internship is integrated into the study programme. However, students can arrange<br>an internship independently if they are interested in doing so. This activity is supported by the<br>programme coordinators.  |
| Course-specific, integrated<br>German language courses  | Yes   |
| Course-specific, integrated<br>English language courses | No  |

## **Costs / Funding**

| Tuition fees per semester in<br>EUR         | 1,500 EUR  |
|---|--|
| Additional information on tuition fees      | EU citizens do not pay tuition fees, whereas non-EU citizens pay a tuition fee of 1,500 EUR per semester.  |
| Semester contribution                       | Approx. 200 EUR per semester   |
| Costs of living                             | Living expenses amount to about 940 EUR per month. You will have to demonstrate that you have sufficient finances to cover your living expenses for 12 months. EU citizens may apply for state-guaranteed loans during the time of enrolment. For more information, see the links on our websites. |
| Funding opportunities within the university | Νο   |

## **Requirements / Registration**

 Academic admission requirements
 Admission requirements:

 • a qualifying Bachelor's degree in Engineering or Natural Sciences or

 • a Bachelor's degree, preferably in a water-related subject or

 • a degree covering at least 180 ECTS points (from a university, a university of applied sciences, or a university of cooperative education with degrees equivalent to those of a university) with completed courses in Civil Engineering, Environmental Engineering or the equivalent.

Applicants from China, Mongolia, India and Vietnam must submit a certificate issued by the "Akademische Prüfstelle (APS)", which has been established at the German Embassy in cooperation

with the German Academic Exchange Service (DAAD).

Admission procedure:

Application is always possible in the period from 15 November to 15 February. The WAREM admission committee reviews each applicant's admission. Decisions will ultimately be based on the student's grade point average (CGPA), his/her educational and professional background in water-related subjects, and the required English language skills. The application process is managed online.

Application:

The following documents have to be uploaded:

- Officially authenticated copy of school leaving certificate (high school certificate or equivalent)
- Officially authenticated copy of the university transcript
- Officially authenticated copy of university diploma
- Grading system of the university
- English proficiency examination
- Personal statement
- APS (China, Mongolia, Vietnam, India) **Optional:**
- Reference letters

| Language requirements | Excellent knowledge of English is required. Non-native speakers have to prove this by providing a language certificate, e.g., TOEFL (Internet-based minimum 79), IELTS (minimum overall band 6.0), CAE – Cambridge Advanced Certificate in English or equivalent.<br>Only having had English as the medium of instruction is not accepted.<br>Native speakers from the USA, Ireland, the UK, Australia, New Zealand and Canada are exempted from this requirement. |
|-----------------------|--|
| Application deadline  | 15 February for the following winter semester, both for non-EU and EU applicants   |
| Submit application to | To apply, please upload all necessary documents online:<br>https://campus.uni-stuttgart.de/cusonline/webnav.ini<br>For further information, please see our website:<br>https://www.warem.uni-stuttgart.de/application/   |

## Services

| Possibility of finding part-<br>time employment | Please be aware that it may be very challenging to finance your whole studies by working at the same time. Non-EU citizens are allowed by law to work for a maximum of 120 days per year. Only students who are employed by the university in one of the institutes or departments ("Studentische/Wissenschaftliche Hilfskräfte") are exempted from this regulation, but other restrictions apply.<br>For more detailed information, please consult our websites:<br>International Students: financing your studies and Working during your studies |
|---|---|
| Accommodation                                   | Both the campus in Stuttgart-Vaihingen and the campus in the centre of Stuttgart have on-site halls<br>of residence. Dorm rooms (ranging from 240 to 350 EUR per month) are furnished. Some are<br>equipped with a sink, and all have access to kitchen and sanitary facilities, telephone and Internet.<br>From the campus in Stuttgart-Vaihingen, the city of Stuttgart can be reached by suburban railway<br>within ten minutes.   |

Support for international students and doctoral candidates

- Welcome event
- Buddy programme
- Tutors
- Accompanying programme
- Cultural and linguistic preparation
- Pick-up service
- Specialist counselling
- Visa matters
- Help with finding accommodation
- Support with registration procedures



### Video on the Master's programme Water Resources Engineering and Management (WAREM)

Get an insight into the MSc programme "Water Resources Engineering and Management (WAREM)" – in just 120 seconds! Two students from the University of Stuttgart explain what is special about this programme and why they chose Stuttgart.

more: https://www.youtube.com/watch? v=Y0r16WISN28

## University of Stuttgart

#### Intelligent systems for a sustainable society

The University of Stuttgart is one of the leading technically oriented universities in Germany with global significance. Located centrally in an economically strong region with vast cultural integration, the university sees itself as a hub of university-based, extramural and industrial research. Furthermore, it takes a role as a leader in research-based teaching, focused on quality and holism. The university is dedicated to researching and strengthening the interfaces between technology, society and culture in an interdisciplinary manner, defined as the "Stuttgart Way". This means the integration of engineering, natural sciences, humanities and social sciences based on the fundamentals of cutting-edge research at a disciplinary level.

#### Excellent research and teaching

The University of Stuttgart implements innovative concepts in research and teaching in order to provide knowledge and strategies for a meaningful and sustainable development. It focuses on basic research that is both knowledge-oriented and application-related. To

facilitate this research, the university is actively part of regional, national and international research networks.

The university is committed to the principle of unity between research and teaching. Students acquire knowledge, expertise and the power of judgement, in accordance with the guidelines of scientific research and awareness. The university fosters fascination for the sciences, supporting its students and junior researchers at all stages of their careers. It promotes independent thinking and provides an environment for responsible action. In doing so, it educates individuals into exceptional experts who think in an integrative and global manner and act responsibly in the sciences, economics and society.

#### A powerful region

Founded in 1829, at the beginning of the Industrial Age, the University of Stuttgart continues to prepare the way for innovation within an economically and scientifically powerful region and contributes to the economic success and prosperity of our society. This process combines the requirements of a social and cultural change, which allows an early and extensive input of social interests in research and design as well as teaching and further education.

#### **Open-mindedness**

The University of Stuttgart stands for open-mindedness, individuality and community spirit. It brings together students that are eager to learn, highly motivated employees, outstanding teachers, and excellent researchers as well as visionary thinkers and inventors. By means of its culture of integration, the university creates and conveys knowledge for shaping the future of our society.



#### 0 University location

The University of Stuttgart is nestled in one of Europe's most vibrant industrial regions. This fosters many forms of interdisciplinary collaboration - for instance, in numerous Collaborative Research Centres (also known as CRC or sometimes CRC/TRR) and in applicationoriented research assignments. The University of Stuttgart sets up a close relationship and a successful transfer of knowledge and technology between its research institutions and business enterprises in the region and beyond. This very practical orientation benefits research and teaching. At the same time, economic players profit from rapid access to new scientific knowledge and contact to experts in their specialised fields. There are numerous possibilities of collaboration for businesses. Furthermore, the university also maintains a close relationship with non-university research institutions such as the Max Planck Society, the Fraunhofer Society, the German Aerospace Center and the German Literature Archive Marbach. Thus, the optimal prerequisites for cutting-edge research at the highest level are all to be found in Stuttgart.

## Contact

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f https://www.facebook.com/MscWarem/



https://www.instagram.com/unistuttgart/

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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

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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