Sustainable Water Management and Engineering (M.Eng.)

Master‘s Program
Engineering Department

BELIEBTESTE HOCHSCHULE in Deutschland
Award 2023
StudyCheck.de

Hochschule Hof
University of Applied Sciences

Sustainable Water Management and Engineering – What is it all about?

Climate change and a growing world population are only two of many reasons why the requirements for a sustainable and resilient water management are getting ever more complex. New challenges and qualification requirements arise for engineers who today have to be managers as well.

The new Master's program Sustainable Water Management and Engineering (M.Eng.) is designed to meet these challenges and to qualify a new generation of engineers.

The program focuses on imparting key competences in management and engineering, flanked by sustainability and digitalization. Based on the latest research in these specialist topics, students train their systematic thinking and communication skills.

What do I gain with this M.Eng.?

With this Master's program, you will be able

_ identify and analyze current and future challenges in water management,

_ develop appropriate solutions and

_ implement and evaluate them in interdisciplinary teams.

In addition, you benefit from

_ a unique Master's degree at the interface of technology and management

_ a perfect interdisciplinary toolbox of knowledge and skills of engineering and business know-how

_ development of your intercultural competence

_ excellent career perspectives

Further information is available on www.hof-university.de

Fast facts

Degree awarded
Master of Engineering (M.Eng.)

Duration
3 semesters (including Master‘s thesis)

Language of instruction
Fully taught in English

Internship
Mandatory internship in industry or in a research institute (semester 3)

Tuiton fees
No tuition fees; just an administrative fee of approx. € 125 per semester

Services and support for international students

_ organisational support before and during your studies at Hof University

_ assistance in finding accommodation

_ Orientation Week prior to the start of your studies

_ social integration

_ career-promoting activities such as intercultural trainings, field trips, and company visits

_ free public transportation in the city of Hof

Special features

Internship

Our M.Eng. students spend the third semester doing a practical internship in industry (e.g. manufacturer of equipment for waste water treatment plants) or in engineering offices (e.g. planning of remote controlled sewers or urban rainwater management). The Master thesis is also written during the internship. Thus, you can immediately apply your knowledge and gain profound professional experience at the same time.

Teaching concept

The Master's program is based on a hands-on, interdisciplinary concept. Current topics like sustainability, water risk management and water resource management are interconnected with classic technologies such as water treatment and water circulation. Above all, the three dimensions of sustainability are considered: the economic efficiency, social responsibility and ecological compatibility.

Theory and hands-on training are closely connected, e.g. in group projects at partner companies. Study excursions to pioneering water management facilities as well as discussions with experts from research and industry form an important part of the Master's program.

What do I need to bring?

Academic requirements

_ Bachelor's degree or similar in engineering or natural sciences providing sufficient knowledge in environmental engineering, water technology and chemistry from an accredited university, at least 210 ECTS or equivalent (depending on home country); minimum grade 2,5 according to the German grading system

_ sufficient knowledge in environmental engineering, water technology and chemistry means at least 5 credits (or their equivalent) were achieved in each of these areas

_ Applicants with less than 210 credits (ECTS) will be accepted but have to gain the missing credits by either

  _ doing an internship (at least 20 weeks) as long as no internship was done during the Bachelor's degree.

  _ Attending appropriate modules at Hof University (for applicants who already did an internship).

  _ For both alternatives, please calculate an additional (fourth) semester.

Language requirements

You need to prove your **proficiency in English**. This can be done with either of the following:

_ TOEFL minimum 90

_ IELTS 6.5 or above

In addition: **Basic language skills in German**, proven by official test score documents - **minimum level A1**

When and how can I apply?

Online application
You register in our online portal Primuss and fill in the application form with your personal details. If you acquired your university entrance certificate abroad, **uni-assist** must assess the certificate before you can send it to Hof University. We advise you to send your documents to uni-assist **at least 4 weeks before our application deadline**.

Application period	EU: November 15 - January 15 Non-EU: November 5 - November 30
Get your admission letter from Hof University	December/January
Online enrolment	March
Orientation Week for international students	first two weeks of March
Start of your studies at Hof University	March 15

Course structure

Semesters 1 & 2	Practice-oriented theory	**Mandatory modules** _ Sustainability Management _ International Water and Risk Management _ Water and Society _ International Water Resources Management _ Advanced Water Treatment _ Wastewater Discharge and Sewer Network with Structures _ Water Quality and Water Cycle _ Smart Water _ R&D or Industrial Project _ New Technologies in the Water Sector **Electives (select one)*** _ German Language A2 _ German Language B1 _ Project Simulation _ Agile, Traditional and Hybrid Methods in International Project Management _ International Human Resource Management _ Energy Efficiency in Water Management Systems * Examples for elective modules; this list is subject to change.
Sem. 3	Internship	_ practical work-experience _ Master‘s thesis with a company

What are my career perspectives?

As a graduate, you...

...have excellent career opportunities for leading positions in the water sector, both in Germany and abroad, e.g.

_ Management tasks in research and construction in the field of water and waste water management

_ Leading positions in industry, public authorities, and medium-sized companies

_ Development or research engineer for nature conservation and environmental protection

_ Planning and consulting work in specialized engineering offices

_ Activity as an expert and appraiser

... Entry positions?

You are ready to work as

_ Product / Project Manager

_ Planning Engineer

_ Sustainability Manager

_ Technical Advisor / Consultant

_ Researcher

Perfect connections for your future

Hof University is part of several water-related networks. This is a unique opportunity for our students to establish business contacts with potential employees at an early stage, e.g. for internships and research topics for the Master's thesis. In addition, we also have an own research institute on campus.

inwa
Institute for Sustainable Water Systems at Hof University

Our **Institute for Sustainable Water Systems (inwa)** focuses on applied research and development in the key areas of sponge city, photonics and food production. In addition to these specialist areas, sustainability and digitalization are increasingly coming to the fore as research topics in their own right. The bundling of know-how results in an interdisciplinary knowledge transfer.

UmweltCluster Bayern

The **Cluster of Environmental Technologies Bavaria** connects more than 230 companies, research institutions, municipalities and policy-makers from the field of environmental technologies made in Bavaria. Their objective is to develop intelligent and sustainable solutions for environmental challenges regionally and globally. Hof University is part of this network with its broad range of expertise, products and services.

KOMPETENZ-NETZWERK WASSER ENERGIE

The **Competence Network Water and Energy** bundles know-how in the field of water and wastewater as well as renewable energies with a focus on smart grids. As a member of this regional network, Hof University has excellent business contacts with the associated member institutions.

„The program is very future-oriented!“

Robert Kuhn from Germany
Student

Why do you do you think so?

„In this study program, the global problems of our water supply in the near future are highlighted (for instance water scarcity due to overpopulation). In addition, the latest technologies that the market already offers, and ongoing research are given to the students so that they can react adequately to any situation in their later professional life (e.g. digitalization, water cycle, water management, smart city concepts...).“

What else do you like about Hof?

„When it comes to housing, the city of Hof is very cheap and at the same time, the entire university is practically a new building. You can see that not only in the buildings but also in the mentality.“

Hima Moochikkal Surendran from India
Student

„The curriculum and the structure of the course are completely beyond my expectation, incorporating many leading-edge technologies that will definitely have an influence in the future water sector. Student life in Hof is exciting with new methods of teaching, international friends and the study atmosphere at the University which is way different than in my home country India. The support and orientation services offered by the International Office were really helpful as an international student and eased the effort in finding out accommodation, and getting to know the academic culture in Germany.“

Who can I contact with further questions?

Head of M.Eng. Program

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