

## Master of Science in Environmental Engineering

### Start of Studies

- winter and summer semester, last day of application July 15<sup>th</sup> or January 15<sup>th</sup> respectively
- limitation to 10 students

### Language

- German, English on demand

### Degree

- 3 semester: Master of Science MSc

### Contact

- Questions about course contents:  
Prof. Dr. H. P. König, room UB 106  
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Dipl.-Ing. Saskia Greiner MSc, room UB 109  
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- Information about course contents:  
<http://www.umwelttechnik.hs-bremen.de>
- Questions about application, admission:  
Mrs. M. Krüger, room AB 111  
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mo 13.00-15.00 Uhr, we/fr 09.30-12.30 Uhr

### Other study offers

- Environmental Engineering (BSc)

### Admission requirements

- first degree for professional qualification (bachelor, diplom) in Environmental, Civil or Process Engineering or similar courses at a university, university of applied sciences or a comparable foreign university
- average mark at least "gut" (2,5) / "good" (ECTS-grade A bis B)
- the following documents have to be submitted for the selection process:
  - 1) application for admission, 2) proof of admission requirements (certificates, documents), 3) curriculum vitae, 4) letter of intent, 5) two letters of recommendation
- the criteria for the selection process are:
  - subject-specific orientation of the first degree, overall mark of first degree, marks in the relevant core subjects, subject specific work experience, spoken and written articulateness, team spirit

The University of Applied Sciences Bremen has a long and distinguished record in Environmental Engineering education and research (Hydraulics 1887, Sanitary Engineering 1956). The objective of the accredited Master of Science degree course is the understanding of the optimal control of environmental technical systems including waste management and technology.

The course aims to provide a knowledge set for independent devising, implementing and managing in environmental engineering projects. In detail we offer advanced skills, that have a strong understanding of the underlying scientific, environmental, social and economic context.

Specific objectives are to:

- > provide a general perspective on environmental issues,
- > develop impact and risk assessment skills,
- > implement a sustainability and waste prevention ethic,
- > integrate environment and development criteria into all technical levels,
- > develop specific skills in process optimization and stability.

### Master of Science in Environmental Engineering (1<sup>st</sup> / 2<sup>nd</sup> semester)

"optimisation of environmental systems and processes"

Colloidal and Interface Chemistry:	Environment Interface Engineering / Colloid and Interface Technology
Environmental Biotechnology:	Engineered Ecosystems / Sustainable Biomass Utilisation
Waste Water Technology:	Planning and managing of waste water treatment plants/drain channel systems
Waste Management and Technology:	Material and Waste Management / Recycling Technology
Processing:	Mathematical Modelling, Simulation and Optimization / Process Sequencing and Automatization, Advanced Mathematics in Scientific Methods

- structured in independent modules: start in the winter and summer semester possible

### Master thesis and colloquium (3<sup>rd</sup> Semester)

- preparation of a scientific orientated master thesis  
content: dealing with a chosen subject in form of a case study, duration: 22 weeks
- a subject comprehensive colloquium takes place at the end of the semester  
content: defence of the master thesis with consideration of all contents of the course, duration: 60 minutes

### Master of Science MSc

Career for environmental engineers are diverse, challenging and expanding with the pressures of increasing population.

The need for optimized, sustainable standards of living will provide local, regional and international opportunities.

Such opportunities can be identified easily in all areas of industry, in government planning and regulatory control, with regional and municipal authorities, consultants and contracting engineer bureaus, research and development organisations, and in education and technology transfer.

Environment relevant activities embrace major and minor infra-structure projects undertaken by both the private and public sectors, municipal works, commercial activities large and small across all sectors:

mining, food, manufacturing, energy production, agriculture, animal hatching both on land and in the sea, building, chemical industry and waste management.

## Master of Science in Environmental Engineering

### Field of work and activity

- national / international consulting firms in the field of planning, design, consultation and implementation of environmental measurements
- municipal and federal authorities in the field of planning, administration and surveillance
- industry and service companies with main focus on environmental technology
- public utility and disposal companies
- environmental departments in industry
- companies in the energy sector
- professional associations and organisations



**FACULTY 2**

*Master of Science (MSc) in  
Environmental Engineering*