Technische Universität München
TUM School of Engineering and Design
Professional Profile Environmental Engineering

Study Structure from winter semester 2016/17 until summer semester 2022

Master of Science in Environmental Engineering

This structure of the Master's Programme in Environmental engineering is valid for all students beginning their studies **after the winter term of 2016/17 until the summer term 2022** (FPSO 20161 and 20211)

The international Master's Program in Environmental Engineering builds upon basic knowledge and competences from undergraduate studies in Environmental Engineering or closely related programmes. It provides students with advanced knowledge and methodologies within a combination of two specific „Fields of Study". Teaching in each Field of Study combines different relevant disciplines from the Department of Civil, Geo and Environmental Engineering and gives students a wide range of perspectives on their field of specialisation.

The fields of study in the master's programme are:

1. Urban Water Engineering
2. Water Resources Management
3. Hydraulic Engineering
4. Hydrogeology, Groundwater, Geothermal Energy
5. Modelling and Measurement of Flow and Transport
6. Resource Efficiency in Urban Planning
7. Environmental Geotechnics
8. Environmental Hazards and Risk
9. Sustainable Urban Mobility Planning
10. Transportation Engineering and Control
11. Water-Energy-Food Nexus

Duration: 4 Semesters

Language: English

Main Location: Munich Downtown Campus

Students chose two Fields of Study in the first semester; this combination determines their professional qualification. Certain combinations correspond with the most common professional profiles of environmental engineers. Following table shows those suggested combinations:

Suggested combinations of Fields of Study Combinations of these FoS correspond with the common professional profiles of environmental engineering	1. Urban Water Engineering	2. Water Resources Management	3. Hydraulic Engineering	4. Hydrogeology, Groundwater and Geothermal Energy	5. Modelling and Measurement of Flow and Transport	6. Resource Efficiency in Urban Planing	7. Environmental Geotechnics	8. Environmental Hazards and Risk	9. Sustainable Urban Mobility Planing	10. Transportation Engineering and Control	11. Water-Food-Energy Nexus
1. Urban Water Engineering	■	■	■	■	■	■	■				■
2. Water Resources Management	■	■	■	■	■		■	■			■
3. Hydraulic Engineering	■	■	■	■	■		■	■			■
4. Hydrogeology, Groundwater and Geothermal Energy	■	■	■	■	■		■				■
5. Modelling and Measurement of Flow and Transport	■	■	■	■	■						
6. Resource Efficiency in Urban Planing	■					■			■	■	
7. Environmental Geotechnics	■	■	■	■			■	■			
8. Environmental Hazards and Risk		■	■				■	■			
9. Sustainable Urban Mobility Planing						■			■	■	■
10. Transportation Engineering and Control						■			■	■	
11. Water-Food-Energy Nexus	■	■	■	■					■		■

The curriculum consists of:

- 2,5 semester (78 credits) course and lab work
- 0,5 semester (12 credits) practical study project
- 1 semester (30 credits) master's thesis

The Fields of Study are the core of the programme and provide the students with their professional qualification. A common block of Cross Cutting Methods provides competences in acquiring, modelling and visualisation of environmental data. Additionally, students have the opportunity to choose part of their modules from the complete curriculum of TUM incl. language courses and soft skills.