

Course of Study Water and Environmental Engineering (Study Cohort w20)

Sample course plan C Master Water and Environmental Engineering (WUMS)
Specialisation Water

Core qualification Compulsory	Specialisation Compulsory	Focus Compulsory	Thesis Compulsory
Core qualification Elective Compulsory	Specialisation Elective Compulsory	Focus Elective Compulsory	Interdisciplinary complement

LP	Semester 1	Form Hrs/wk	Semester 2	Form Hrs/wk	Semester 3	Form Hrs/wk	Semester 4	Form Hrs/wk									
1	Biology, Geology and Chemistry		Modeling in Water Management		Study Work Water/ Waste Water		Master Thesis										
2									Environmental Analysis	VL	2	Groundwater Modeling using Modflow	VL	1			
3									Geology and Soil Science	VL	2	Groundwater Modeling using Modflow	UE	2			
4									Biology	VL	2	Modeling of Water Supply and Sewer Network	PBL	2			
5																	
6																	
7	Sustainability and Risk Management		Management of Surface Water		Membrane Technology												
8									Environment and Sustainability	VL	2	Modelling of Flow in Rivers and Estuaries	VL	3	Membrane Technology	VL	2
9									Safety, Reliability and Risk Assessment	SE	2	Nature-Oriented Hydraulic Engineering / Integrated Flood Protection	PBL	2	Membrane Technology	UE	1
10															Membrane Technology	PR	1
11																	
12																	
13	Groundwater		Wastewater Systems		Process Modeling in Water Technology												
14									Geohydraulic and Solute Transport	VL	2	Advanced Wastewater Treatment	VL	2	Process Modeling in Drinking Water Treatment	PBL	2
15									Geohydraulic and Solute Transport	UE	1	Advanced Wastewater Treatment	HÜ	1			
16									Simulation in Groundwater Hydrology	VL	1	Wastewater Systems - Collection, Treatment and Reuse	VL	2	Process Modelling of Wastewater Treatment	PBL	2
17									Simulation in Groundwater Hydrology	UE	2	Wastewater Systems - Collection, Treatment and Reuse	HÜ	1			
18																	
19	Water Resources and -Supply		Soil and Groundwater Contamination		Practical Course in Water and Wastewater Technology												
20									Chemistry of Drinking Water Treatment	VL	2	NAPL in Soil and Groundwater	VL	1	Practical Course in Water and Wastewater Technology I	PR	2
21									Chemistry of Drinking Water Treatment	HÜ	1	NAPL in Soil and Groundwater	UE	2			
22									Water Resource Management	VL	2	Contamination and Remediation	PS	3	Practicle Course of Wastewater Technology II	PR	3
23									Water Resource Management	UE	1						
24																	
25	Construction and Simulation of Sewerage Systems																
26																	
27									Construction and renovation of urban sewer systems	SE	3						
28									Simulation of sewerage systems	SE	3						
29																	
30																	
Business & Management (from catalogue) - 6LP																	
Non-technical Courses for Master (from catalogue) - 6LP																	

The choice of courses from the catalogue is flexible (depends on the semestral work load), provided the necessary number of required credits is reached.

