

Regestudien- und Prüfungsplan Water Engineering 21/2023

Nr.	Modules	1. Sem. Magdeburg				
		A	SWS	PVL	PL	C
Choose 5 of the following modules						
1.	Global water resources management		6		H/E	6
1.1	Global water resources, EU law and global policies	V,Ü	2			2
1.2	Strategies / Legislation / plan signs	V,Ü	2			2
1.3	Water management plans and projects	V,Ü	2			2
2.	Water supply		6		H/E/K	6
2.1	Drinking water distribution	V,Ü	4			4
2.2	Design of water supply pipelines	V	2			2
3.	Statistical Methods & Artificial Intelligence		4		H/K	6
3.1	Environmental Statistics	V,Ü	2			3
3.2	Data Analysis & Artificial Intelligence	V,Ü	2			3
4.	Waste technologies		4		E/H/K	6
4.1	Waste treatment	V,Ü	2			3
4.2	Waste and ocean	V,Ü	2			3
5.	Restoration Ecology		6		E/H	6
5.1	Ecology and restoration of rivers	V,S,Pr	2			2
5.2	Ecology and restoration of lakes	V,S,Pr	1			1
5.3	Project in river restoration	Pr	2			2
5.4	Ecology in arid terrestrial systems	V,S,Pr	1			1
6.	Soft Skills		6		H	6
6.1	German language courses	V,Ü	1			1
6.2	Excursion / Presentation technique	Ex./S	4			4
6.3	Intercultural competence	V,Ü	1			1
7.	Environmental Chemistry of Waters		6		E/H/K	6
7.1	Aquatic environmental chemistry	V,Ü	2			2
7.2	Analysis of water constituents and pollutants	V,Ü,LP	2			2
7.3	Water quality and pollution	V,Ü	2			2
8.	Groundwater		4		E/H	6
8.1	Groundwater modelling of dams	V	2			3
8.2	Groundwater models	V,Ü	2			3
	Further Optional Courses*	*	4-6		*	6
Σ 1.Sem.			22-30			30

1CP = 30h workload for students

Nr.	Modules	2. Sem. Magdeburg				
		A	SWS	PVL	PL	C
Choose 5 of the following modules						
9.	Hydraulic Engineering		6		E/H/K	6
9.1	Design of hydraulic structures	V	2			2
9.2	Risk management	V,Ü	2			2
9.3	Flood protection	V	2			2
10.	Hydrology and GIS		5		H	6
10.1	GIS and Hydrology	V,Ü	4			4
10.2	Advanced Hydrology	V	1			2
11.	Experimental Hydraulics		5		EA,H	6
11.1	Model theory	V	1			2
11.2	Hydraulic and morphological experiments	V,Ü,LP	2			2
11.3	Measurement techniques	V,Ü,LP	2			2
12.	River Morphology		6		E/K180	6
12.1	River Morphology	V,Ü	2			2
12.2	Sediment transport	V,Ü	2			2
12.3	Sedimentation and Erosion	V,Ü	2			2
13.	Computational Fluid Dynamics		4		H/E	6
13.1	1dhn- modelling	V,Ü	2			3
13.2	2dhn- modelling	V,Ü	2			3
14.	Waste Water		5		E/H	6
14.1	Waste water technology	V,Ü	2			2
14.2	Sludge treatment and anaerobic treatment	V,Ü	1			2
14.3	Design of sewer networks (Schmidt)	V,Ü	2			2
15.	Drinking Water Treatment		6		E/H/K	6
15.1	Drinking water treatment	V,Ü	4			4
15.2	Treatment plant design	V,Ü	2			2
16.	Social Aspects		6		H/E	6
16.1	Environmental laws and policies, Impact Assessment	V,Ü	2			2
16.2	Social-ecological systems	V,Ü	2			2
16.3	Approval processes	V,Ü	2			2
	Further Optional Courses*	*	4-6		*	6
	Σ 2. Sem.		23-30			30

1CP = 30h workload for students

Nr. Module Master Thesis		
17.	Master Thesis	30
	Σ 3. Sem.	30

Legende zum Regelstudien- und Prüfungsplan

A = Art der Lehrveranstaltung
 SWS = Semesterwochenstunden
 V = Vorlesung
 S = Seminar
 Ü = Übung
 Ko = Kolloquium
 LP = Laborpraktika
 Pr = Praktikum
 Exk = Exkursionen

PVL = Prüfungsvorleistung
 PL = Prüfungsleistung
 C = Credits
 K = Klausur
 K90 = Klausur 90 Minuten
 K120 = Klausur 120 Minuten
 K180 = Klausur 180 Minuten
 M = Mündliche Prüfung
 H = Hausarbeit
 E = Entwurf
 TN = Teilnahmenachweis
 EA = Experimentelle Arbeit
 WP = Wissenschaftliches Projekt
 R = Referat
 MA = Masterarbeit

/ = oder (z. B. V/Ü = Vorlesung oder Übung)
 , = oder (z. B. V,Ü = Vorlesung und Übung)
 * = Further Optional Courses (weitere Wahlpflichtmodule)