

## Regelstudien- und Prüfungsplan

### des internationalen Masterstudiengangs Water Engineering

Nr.	Pflichtmodule/Compulsory modules	1. Semester (La Coruna)				
		A	SWS	PVL	PL	C
<b>1.</b>	<b>Hydrological Plannings and Projects I</b>		<b>6</b>		<b>H/E</b>	<b>6</b>
1.1	Analysis of water resource systems	V,Pr	1			1
1.2	Design of water resources systems	V,Pr	2			2
1.3	Water management plans	V,Pr	2			2
1.4	Water economy and legislation	V,Pr	1			1
<b>2.</b>	<b>Water supply and drainage systems</b>		<b>6</b>		<b>K180</b>	<b>6</b>
2.1	Supply systems design	V	4			4
2.2	Urban drainage	V	2			2
<b>3.</b>	<b>Physico-Chemistry and quality of water</b>		<b>6</b>		<b>EA, H*</b>	<b>6</b>
3.1	Principles of water chemistry	V,LP	2			2
3.2	Water quality	V,LP	3			3
3.3	Analytical technics	LP	1			1
	<b>Wahlpflichtmodule (2 von 4)/ Optional Courses (2/4)</b>		<b>12</b>			<b>12</b>
<b>4.</b>	<b>Experimental Hydraulics I</b>		<b>6</b>		<b>EA</b>	<b>6</b>
4.1	Scale models I	V,LP	2			2
4.2	Experimental field techniques	V,LP	4			4
<b>5.</b>	<b>Computational Fluid Dynamics I</b>		<b>6</b>		<b>H/K180</b>	<b>6</b>
5.1	Mathematics I	V,Ü	4			4
5.2	Finite element programming	V,Ü	1			1
5.3	Porous media and geochemical models	V,Ü	1			1
<b>6.</b>	<b>Water Treatment and Energy Efficiency</b>		<b>6</b>		<b>H</b>	<b>6</b>
6.1	Water treatment processes	V,Pr	2			2
6.2	Power consumption	V,Pr	2			2
6.3	Environmental implications	V	2			2
<b>7.</b>	<b>Groundwater Engineering I</b>		<b>6</b>		<b>K180</b>	<b>6</b>
7.1	Physical Hydrogeology	V,Ü	3			3
7.2	Hydrogeochemical principles	V	2			2
7.3	Hydrodynamic in aquifers	V,Ü	1			1
	<b>Σ Pflicht- und Wahlpflichtmodule 1.Semester</b>		<b>30</b>			<b>30</b>

Nr.	Pflichtmodule/Compulsory modules	2. Semester (Magdeburg)				
		A	SWS	PVL	PL	C
<b>8.</b>	<b>Hydraulic Plannings and Projects II</b>		6		E/K180	6
8.1	Global Water resource management and strategies	V	2			2
8.2	Design of dams, water treatment and waster water-plants	V	2	Exk		2
8.3	Plannings and project	V	2			2
<b>9.</b>	<b>GIS and Hydrology</b>		6		H	6
9.1	GIS and Hydrology	V,U	3			3
9.2	Advanced Hydrology	V	1			1
9.3	Hydrological Design criterias	V,Ü	2			2
<b>10.</b>	<b>Restoration Ecology</b>		6		H	6
10.1	Ecology and restoration of rivers	V,S,Pr	2			2
10.2	Ecology and restoration of lakes	V,S,Pr	2			2
10.3	Project in river restoration	Pr	2			2
	<b>Wahlpflichtmodule (2 von 4)/ Optional Courses (2/4)</b>		12			12
<b>11.</b>	<b>Experimental Hydraulics II</b>		6		H	6
11.1	Scale models II	V,Ü,LP	2	Exk.		2
11.2	Morphological flume experiments	V,Ü,LP	2			2
11.3	Scouring at hydraulic structures	V,U,LP	2	R		2
<b>12.</b>	<b>Computational Fluid Dynamics II</b>		6		H/K180	6
12.1	Mathematics II	V,Ü	2			2
12.2	1 D-Models	V,Ü	1			1
12.3	2 D-models	V,Ü	1			1
12.4	3 D-models	V,Ü	2			2
<b>13.</b>	<b>River Morphology</b>		6		E/K180	6
13.1	River Morphology	V	2			2
13.2	Sediment transport	V	1			1
13.3	Planning and Projects	V,Ü	2			2
13.4	Sedimentation and Erosion	V	1			1
<b>14.</b>	<b>Environmental biotechnology and hydrochemistry</b>		6		H	6
14.1	Environmental biotechnology and hydrochemistry	V,Ü,LP	4			4
14.2	Water Chemistry	V,LP	2			2
	<b>Σ Pflicht- und Wahlpflichtmodule</b>		30			30

Nr.	3. Semester (La Coruna, Magdeburg, Projektpartner, Unternehmen/Institutionen)	
		C
15.	Practicum as Enterprise training or University Practicum	15
16.	Master Thesis	15
	<b>Σ Practicum and Master Thesis</b>	<b>30</b>

## 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

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)

\* = die Modulnote wird am Fachbereich gebildet und von dem Studiengangleiter oder der Studiengangleiterin an das Prüfungsamt übermittelt