

# Standard Curriculum and Examination Schedule

Abbreviations used in the Standard Curriculum and Examination Schedule:

T = Type of teaching unit  
 SH = Semester hours  
 L = Lecture  
 S = Seminar  
 Tu = Tutorial  
 Co = Colloquium  
 LP = Laboratory practicals  
 Tr = Traineeship  
 SV = Study visits

PEA = Pre-examination assessment  
 EA = Examination achievement  
 C = Credits  
 WE = Written examination  
 WE60 = 60-minute written exam  
 WE90 = 90-minute written exam  
 WE120 = 120-minute written exam

WE180 = 180-minute written exam

OE = Oral examination  
 APa = Academic paper  
 DP = Design project

EC = Experimental coursework  
 APr = Academic project  
 OP = Oral presentation  
 MT = Master's thesis

/ = or (e.g. L/Tu = lecture or tutorial)  
 , = (e.g. L, Tu = lecture and tutorial)  
 \* = the module grades are determined in the department and communicated to the examinations office by the programme director.

No.	Mandatory modules	winter semester (A Coruña)				
		T	SH	PEA	EA	C
<b>1</b>	<b>Hydrological Planning and Projects I</b>		<b>6</b>		<b>APa/DP</b>	<b>6</b>
1.1	Analysis of water resource systems	L, Tr	1			1
1.2	Design of water resource systems	L, Tr	2			2
1.3	Water management plans	L, Tr	2			2
1.4	Water economy and legislation	L, Tr	1			1
<b>2</b>	<b>Water supply and drainage systems</b>		<b>6</b>		<b>WE180</b>	<b>6</b>
2.1	Supply system design	L	4			4
2.2	Urban drainage	L	2			2
<b>3.</b>	<b>Physico-chemistry and quality of water</b>		<b>6</b>		<b>EC/APa</b>	<b>6</b>
3.1	Principles of water chemistry	L, LP	2			2
3.2	Water quality	L, LP	3			3
3.3	Analytical techniques	LP	1			1
	<b>Mandatory elective modules (2 of 4)</b>		<b>12</b>			<b>12</b>
<b>4</b>	<b>Experimental Hydraulics I</b>		<b>6</b>		<b>EC</b>	<b>6</b>
4.1	Scale models I	L, LP	2			2
4.2	Experimental field techniques	L, LP	4			4
<b>5</b>	<b>Computational Fluid Dynamics I</b>		<b>6</b>		<b>APa/W E180</b>	<b>6</b>
5.1	Mathematics I	L, Tu	4			4
5.2	Finite element programming	L, Tu	1			1
5.3	Porous media and geochemical models	L, Tu	1			1
<b>6</b>	<b>Water Treatment and Energy Efficiency</b>		<b>6</b>		<b>APa</b>	<b>6</b>
6.1	Water treatment processes	L, Tr	2			2
6.2	Power consumption	L, Tr	2			2
6.3	Environmental implications	L	2			2
<b>7</b>	<b>Groundwater Engineering I</b>		<b>6</b>		<b>WE180</b>	<b>6</b>
7.1	Physical Hydrogeology	L, Tu	3			3
7.2	Hydrogeochemical principles	L	2			2
7.3	Hydrodynamics in aquifers	L, Tu	1			1
	<b>Σ Mandatory and mandatory elective modules, semester 1</b>		<b>30</b>			<b>30</b>

No.	Mandatory modules	summer semester (Magdeburg)				
		T	SH	ME	E	C
<b>8</b>	<b>Hydraulic Planning and Projects II</b>		6		DP/WE 180	<b>6</b>
8.1	Global Water resource management and strategies	L	2			2
8.2	Design of dams, water treatment and wastewater plants	L	2	SV		2
8.3	Planning and projects	L	2			2
<b>9</b>	<b>GIS and Hydrology</b>		<b>6</b>		<b>APa</b>	<b>6</b>
9.1	GIS and Hydrology	L, Tu	3			3
9.2	Advanced Hydrology	L	1			1
9.3	Hydrological design criteria	L, Tu	2			2
<b>10</b>	<b>Restoration Ecology</b>		<b>6</b>		<b>APa</b>	<b>6</b>
10.1	Ecology and restoration of rivers	L, S, Tr	2			2
10.2	Ecology and restoration of lakes	L, S, Tr	2			2
10.3	River restoration project	Tr	2			2
	<b>Mandatory elective modules (2 of 4)</b>		<b>12</b>			<b>12</b>
<b>11</b>	<b>Experimental Hydraulics II</b>		<b>6</b>		<b>APa</b>	<b>6</b>
11.1	Scale models II	L, Tu, LP	2	SV		2
11.2	Morphological flume experiments	L, Tu, LP	2			2
11.3	Scouring at hydraulic structures	L, Tu, LP	2	OP		2
<b>12</b>	<b>Computational Fluid Dynamics II</b>		<b>6</b>		<b>APa/W E180</b>	<b>6</b>
12.1	Mathematics II	L, Tu	2			2
12.2	1-D models	L, Tu	1			1
12.3	2-D models	L, Tu	1			1
12.4	3-D models	L, Tu	2			2
<b>13</b>	<b>River Morphology</b>		<b>6</b>		<b>DP/WE 180</b>	<b>6</b>
13.1	River Morphology	L	2			2
13.2	Sediment transport	L	1			1
13.3	Planning and Projects	L, Tu	2			2
13.4	Sedimentation and Erosion	L	1			1
<b>14</b>	<b>Environmental biotechnology and hydrochemistry</b>		<b>6</b>		<b>APa</b>	<b>6</b>
14.1	Environmental biotechnology and hydrochemistry	L, Tu, LP	4			4
14.2	Water chemistry	L, LP	2			2
	<b>Σ Mandatory and mandatory elective modules</b>		<b>30</b>			<b>30</b>

No.	3rd semester (A Coruña, Magdeburg, Project Partners, Companies / Institutions)	C
<b>15</b>	<b>Enterprise training practicum or University practicum</b>	<b>15</b>
<b>16</b>	<b>Master's Thesis</b>	<b>15</b>
	<b>Σ Practicum and Master Thesis</b>	<b>30</b>