DEPARTMENT OF CIVIL ENGINEERING

Course Details				
Code	**Academic Year**			**Semester**
BAU452	4			Fall
Title	**T**	**A**	**L**	**ECTS**
Basics of Urban Water Management	2	1	-	6

Language	German					
Level	**Undergraduate**	✓	**Graduate**		**Postgraduate**	
Department / Program	Civil Engineering					
Forms of Teaching and Learning	Formal					
Course Type	**Compulsory**		**Elective**	✓		
Objectives	The courses impart scientific foundations and simple practical applications in several areas of water management.					
Content	Hydraulic engineering: hydrology, river engineering, dams, hydropower plants, hydraulic engineering, coastal engineering Engineering hydrology: water cycle and household, precipitation, evaporation, infiltration, groundwater, runoff, basics of river basin modeling, runoff formation models, system hydrology, unit gait processes, translation and retention models, watercourse models, physically based hydrological models, agricultural hydraulic engineering Water management projects, interaction of urban water management, hydrological and hydraulic engineering aspects					
Prerequisites	“Fluid Mechanics”					
Coordinator						
Lecturer(s)						
Assistant(s)						
Work Placement						

Recommended or Required Reading	
Books / Lecture Notes	„Hydraulik für Bauingenieure: Grundlagen und Anwendungen“, Robert Freimann
Other Sources	

Additional Course Material	
Documents	
Assignments	
Exams	

Course Composition		
Mathematics und Basic Sciences		%
Engineering	100	%

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Engineering Design		%
Social Sciences		%
Educational Sciences		%
Natural Sciences		%
Health Sciences		%
Expert Knowledge		%

Assessment

Activity	Count	Percentage (%)
Midterm Exam	2	40
Quiz		
Assignments		
Attendance		
Recitations		
Projects		
Final Exam	1	60
	Total	**100**

ECTS Points and Work Load

Activity	Count	Duration	Work Load (Hours)
Lectures	14	3	42
Self-Study	14	2	28
Assignments			
Presentation / Seminar Preparation			
Midterm Exam	2	1	5
Recitations			
Laboratory			
Projects			
Final Exam	1	2	10
		Total Work Load	**85**
		ECTS Points (Total Work Load / Hour)	**4**

Learning Outcomes

1	Hydraulic engineering: scientific basics and their application in the planning, calculation and dimensioning of simple hydraulic engineering systems
2	Engineering hydrology: scientific foundations and their implementation for the planning, calculation and measurement of simple hydrological systems in rural and urban areas. Examples of applications from the water sector: Independent processing of simple engineering projects from the water sector
3	
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Weekly Content	
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Contribution of Learning Outcomes to Program Objectives (1-5)

	P1	P2	P3	P4	P5	P6	P7
1							
2							
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10							
11							
12							

Contribution Level	1: Low 2: Low-intermediate 3: Intermediate 4: High 5: Very High
Compiled by:	
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