DEPARTMENT OF CIVIL ENGINEERING

Course Details

Code	Academic Year			Semester
BAU452	4			Spring
Title	**T**	**A**	**L**	**ECTS**
Basics of Urban Water Management	3	2	-	6

Language	German					
Level	**Undergraduate**	✓	**Graduate**		**Postgraduate**	
Department / Program	Civil Engineering					
Forms of Teaching and Learning	Formal					
Course Type	**Compulsory**		**Elective**	✓		
Objectives	Designed and planed simple residential water management systems					
Content	Hydraulic engineering: hydrology, river engineering, dams, hydroelectric power plants, waterway engineering, coastal engineering Engineering hydrology: water cycle and balance, precipitation, evaporation, seepage, groundwater, runoff, basics of river basin modelling, runoff formation models, system hydrology, unit hydrograph method, translation and retention models, river models, physically based hydrological models, agricultural hydraulic engineering Application examples from water management: independent processing of simple engineering practice Water management projects, interaction of urban water management, hydrological and hydraulic engineering aspects.					
Prerequisites	BAU205 Fluid Mechanics					
Coordinator	--					
Lecturer(s)	Prof. Dr.-Ing. M. Barjenbruch, Dr. Ö.F. AYDIN					
Assistant(s)	M.Sc., C. Eichholz					
Work Placement	--					

Recommended or Required Reading

Books / Lecture Notes	„Taschenbuch der Wasserwirtschaft“, Lecher, Kurt; Lühr, Hans-Peter; Zanke, Ulrich
Other Sources	

Additional Course Material

Documents	Weekly provision via "Google G Suite for Education", processing according to the weekly semester schedule
Assignments	
Exams	Midterm exam, oral final exam

Course Composition

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Mathematics und Basic Sciences		%
Engineering	60	%
Engineering Design	40	%
Social Sciences		%
Educational Sciences		%
Natural Sciences		%
Health Sciences		%
Expert Knowledge		%

Assessment

Activity	Count	Percentage (%)
Midterm Exam	1	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	5	70
Assignments			
Presentation / Seminar Preparation	12	2	24
Midterm Exam	1	2	2
Recitations	14	2	28
Laboratory			
Projects			
Final Exam	1	2	2
		Total Work Load	**168**
		ECTS Points (Total Work Load / Hour)	**6**

Learning Outcomes

1	Education, gives students the scientific basis for water management in urban areas.
2	Students can measure and plan simple water management systems.
3	

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Weekly Content

1	Introduction urban water management, water demand, - production
2	Water transport, quality, treatment
3	Water storage and distribution
4	Water demand and single well
5	Water reservoirs
6	Sewer system, rainwater I
7	Sewer system, rainwater I I
8	Time coefficient
9	Mechanical cleaning
10	Mechanical cleaning
11	Biological cleaning
12	Biological cleaning
13	
14	
15	

Contribution of Learning Outcomes to Program Objectives (1-5)

	P1	P2	P3	P4	P5	P6	P7
1	5	3	4	5	4	2	5
2	5	3	4	5	4	2	5
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Contribution Level	1: Low 2: Low-intermediate 3: Intermediate 4: High 5: Very High

https://obs.tau.edu.tr/oibs/bologna/progLearnOutcomes.aspx?lang=en&curSunit=5728

Compiled by:	Mehmet Vefa İlgün
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