



CIVIL ENGINEERING FACULTY
2013-2014 FALL

WATER RESOURCES
COURSE DESCRIPTION FORM

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Course	<i>Name</i>	WATER RESOURCES						
	<i>Code</i>	INS -441E			<i>Type</i>	Mandatory		
	<i>Credit</i>	2.5			<i>Hours/ Week</i>	2 / 1		
	CRN	Class	Time	Faculty	Office	Tel.	E-Mail	Office hours
	12697	B-304	Wednesday 13.30-16.30	Associate Professor Mehmet Özger	Hid. Lab.	285 3717	ozgerme@itu.edu.tr	Wednesday 12:30-13:30
	CRN	Class	Time	Teaching asst.	Office	Tel.	E-Mail	Office hours
12697	B-304	Wednesday 15.30-16.30	Yavuz Karsavran	Hid. Lab.	285 6847	karsavran@itu.edu.tr	Wednesday 12:30-13:30	
<i>Course Book</i>	<i>Turkish</i>	Erkek, C. ve Ağırlioğlu, N., Su Kaynakları Mühendisliği, Beta Yay., 1998 (3.Baskı)						
	<i>English</i>	Yanmaz, A. M., 1997, Applied Water Resources Engineering, METU PRESS, First Edition						
<i>Recommended Books</i>		<ol style="list-style-type: none"> Mays, L.W. Water Resources Engineering, Wiley, 2010. (2nd edition) Linsley, R.K., Franzini, J.B., Freyberg, D.L., Tchobanoglous, G., Water Resources Engineering, Mc Graw Hill, 1992 (4.Baskı) Erkek, C. ve Ağırlioğlu, N., Su Kaynakları Problemleri, İ.T.Ü. Yay., 1995 (2.Baskı) 						

In term activities	Numbers	Contribution to in term (%)	Ingredients
Assignment	2	30	
Midterm Exam	2	70	
Quiz			
Experiment/Exercise			
Other			
Requirement for Final Exam: Attendance to classes at least 70% and both of the assignments should be submitted.			
<i>Contribution of in term activities to final grade (%)</i>		<i>Contribution of final exam to final grade (%)</i>	<i>Final grade (%)</i>
50		50	100

Weeks	TOPIC	EXERCISES	Turkish Course Book (pages)	English Course Book (pages)
1	Introduction to Water Resources	Water requirements	13-46	1-3
2	Reservoirs	Active storage	212-248	7-15
3	Reservoirs	Dead storage	212-248	15-24
4	Dams	Acting forces	164-210	29-56
5	Spillways, Gates	Stability analysis	164-210	56-105
6	Weirs	Stability analysis	164-210	121-145
7	Sediment transport	1. Midterm Exam (October 30, 2013)	49-73	109-119
8	Irrigation	Requirement for irrigation	313-324	283-295
9	Irrigation	Design of irrigation networks	313-324	295-306
10	Drainage	Design of drainage	325-333	311-326
11	Hydropower	Design of hydroelectric plants	291-312	329-334
12	Hydropower	2. Midterm Exam (December 04, 2013)	291-312	334-339
13	Flood control	Calculation of flood control facilities	111-136	341-352
14	Economic analysis	Example of economic analysis	335-349	357-364