



CIVIL ENGINEERING FACULTY  
2022-2023 FALL

WATER RESOURCES  
COURSE DESCRIPTION FORM

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İTÜ



Course	Name	WATER RESOURCES				
	Code	INS -441E		Type	Mandatory	
	Credit	2.5		Hours/ Week	3 / 1	
	CRN	Time	Lecturer	E-Mail	Teaching asst.	E-Mail
	13348	Monday 9:30-12:30	Abdüselam Altunkaynak	altunkay@itu.edu.tr	Elif Kartal	kartalel@itu.edu.tr
Course Book	Turkish	Erkek, C. ve Ağralıoğlu, N., Su Kaynakları Mühendisliği, Beta Yay., 1998 (3.Baskı)				
	English	Yanmaz, A. M., 1997, Applied Water Resources Engineering, METU PRESS, First Edition				
Recommended Books	1. Mays, L.W. Water Resources Engineering, Wiley, 2010. (2 <sup>nd</sup> edition) 2. Linsley, R.K., Franzini, J.B., Freyberg, D.L., Tchobanoglous, G., Water Resources Engineering, Mc Graw Hill, 1992 3. Erkek, C. ve Ağralıoğlu, N., Su Kaynakları Problemleri, İ.T.Ü. Yay., 1995 (2.Baskı)					

In term activities	Numbers	Contribution to in term (%)	Ingredients
Project	1	30	
Midterms	2	30	
Final	1	40	
<b>Requirement for Final Exam: Attendance to classes at least 70% and assignments(project) should be appropriate level</b>			
Contribution of in term activities to final grade (%)		Contribution of final exam to final grade (%)	Final grade (%)
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	Dams	Acting forces	164-210	29-56
6	Spillways, Gates	Stability analysis	164-210	56-105
7	1 <sup>st</sup> Midterm			
8	Spillways, Gates	Stability analysis	164-210	121-145
9	Spillways, Gates	Stability analysis	164-210	121-145
10	Sediment transport	Spillways, Gates	49-73	109-119
11	Sediment transport	Transportation Calculations	313-324	295-306
12	Diversion Weirs	Stability analysis	325-333	311-326
13	2 <sup>nd</sup> Midterm			
14	Hydropower	Design of hydroelectric plants	335-349	357-364