



CIVIL ENGINEERING FACULTY
2024-2025 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		<i>Hours/Week</i>	2	
	CRN	Time	Lecturer	E-Mail	Teaching asst.	E-Mail
	13919	Monday 9:30-11:30	Abdüsselam Altunkaynak	altunkay@itu.edu.tr	Elif Kartal	kartalel@itu.edu.tr
<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>	1. Mays, L.W. Water Resources Engineering, Wiley, 2010. (2 nd edition) 2. Linsley, R.K., Franzini, J.B., Freyberg, D.L., Tchobanoglous, G., Water Resources Engineering, Mc Graw Hill, 1992 (4.Baskı) 3. Erkek, C. ve Ağırlioğlu, N., Su Kaynakları Problemleri, İ.T.Ü. Yay., 1995 (2.Baskı)					

In term activities	Numbers	Contribution to in term (%)
Midterms	2	40
Homework	1	10
Final	1	50

Requirement for Final Exam: Students are required to maintain a minimum attendance rate of 70% for classes.

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 st 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	Design of diversion Weirs	325-333	311-326
13	2 nd Midterm			
14	Hydropower	Design of hydroelectric plants	333-345	327-340