

Course	Name	Fluid Mechanics				
	Code	AKM-204E			Type	Mandatory
	Credit	3			Hours	3+0
	CRN	Class	Time	Faculty	Office	E-Mail
	22055	A105	Monday 9:30-12-30	Prof. Dr. Abdüsselam Altunkaynak Res. Asst. Elif Kartal	Hid. Lab.222 Hid. Lab. 227	altunkay@itu.edu.tr kartalel@itu.edu.tr
Course Book	English	D.F. Young, B. R. Munson, T. H. Okiishi, W. W. Huebsch, Introduction to Fluid Mechanics, SI Version, 5th Edition, November 2011, Wiley				
	Turkish	Hidrolik, B. Mutlu Sümer, İstemi Ünsal, Mehmetçik Beyazıt, Birsen Yayınevi				
Recommended Books	<ol style="list-style-type: none"> Robert W. Fox, Alan T. McDonald, Philip J. Pritchard, Fluid Mechanics, International Student Version, 8th Edition, October 2011, Wiley. Clayton T. Crowe, Engineering Fluid Mechanics, International Student Version, 9th Edition, Wiley. 					

COURSE PLAN

In-term Evaluation Criteria			Final Evaluation Criteria	
Faaliyet / Item	Number	Contribution to interm	Interm Grade	Final Grade
Quizzes	4	% 40	%50	%50
Midterms	2	% 60		
Requirement for Final Exam:	Compulsory attendance to pass the course: 70%			
	Minimum total score for in-term activities must be 30			

Week	Date	Topics to be Covered
1	12.02.2024	Unit Systems, Dimensional Homogeneity, Physical Properties of Fluids
2	09.02.2024	Behaviour of Fluids under Stresses
3	26.02.2024	Hydrostatics, Pressure Concept
4	04.03.2024	Calculation of Pressure Forces
5	11.03.2024	Basic Equations of Fluid Statics, Relative Equilibrium
6	18.03.2024	Relative Equilibrium, Kinematics of Fluids
7	25.03.2024	Midterm Exam 1
8	01.04.2024	Basic Equations of One-Dimensional Flow
Spring Break		
9	15.04.2024	One-Dimensional Flow of Ideal Fluids
10	22.04.2022	One-Dimensional Flow of Ideal Fluids: Applications
11	29.04.2022	One-Dimensional Flow of Real Fluids, Laminar and Turbulent Flow
12	06.05.2022	Two-Dimensional Flow of Ideal Fluids
13	13.05.2024	Midterm Exam 2
14	20.05.2022	Velocity Potential Flows and Boundary Layer and Separation Concepts