



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Fluid Mechanics I							
Course Code		FBÖ420		Course Level		First Cycle (Bachelor's Degree)			
ECTS Credit	4	Workload	100 ( <i>Hours</i> )	Theory	2	Practice	0	Laboratory	0
Objectives of the Course		The objective of the course is to understand the feature of solid, liquid and gas pressure.							
Course Content		Hydrostatic, States of Matter, Density and Pressure, Exercises on density and pressure, Archimedes Principle, Pascal Prensiple, Manometers and barometers, Density determination, Hydrodynamics, Moving flow and Turbulent flow,							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Experiment, Discussion, Project Based Study, Problem Solving					
Name of Lecturer(s)									

### Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	70

### Recommended or Required Reading

1	Çıray, C. (2010). Akışkanlar Mekaniğine Giriş Birinci Kitap. ODTÜ Geliştirme Vakfı Yayıncılık İletişim A.Ş. Ankara
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Week	Weekly Detailed Course Contents	
1	Theoretical	Hydrostatic
	Preparation Work	Çıray, C. (2010). Akışkanlar Mekaniğine Giriş Birinci Kitap. ODTÜ Geliştirme Vakfı Yayıncılık İletişim A.Ş. Ankara
2	Theoretical	States of Matter
	Preparation Work	Çıray, C. (2010). Akışkanlar Mekaniğine Giriş Birinci Kitap. ODTÜ Geliştirme Vakfı Yayıncılık İletişim A.Ş. Ankara
3	Theoretical	States of Matter
	Preparation Work	Çıray, C. (2010). Akışkanlar Mekaniğine Giriş Birinci Kitap. ODTÜ Geliştirme Vakfı Yayıncılık İletişim A.Ş. Ankara
4	Theoretical	Density and Pressure
	Preparation Work	Çıray, C. (2010). Akışkanlar Mekaniğine Giriş Birinci Kitap. ODTÜ Geliştirme Vakfı Yayıncılık İletişim A.Ş. Ankara
5	Theoretical	Exercises on density and pressure
	Preparation Work	Çıray, C. (2010). Akışkanlar Mekaniğine Giriş Birinci Kitap. ODTÜ Geliştirme Vakfı Yayıncılık İletişim A.Ş. Ankara
6	Theoretical	What is the pressure?
	Preparation Work	Çıray, C. (2010). Akışkanlar Mekaniğine Giriş Birinci Kitap. ODTÜ Geliştirme Vakfı Yayıncılık İletişim A.Ş. Ankara
7	Theoretical	Archimedes Principle
	Preparation Work	Çıray, C. (2010). Akışkanlar Mekaniğine Giriş Birinci Kitap. ODTÜ Geliştirme Vakfı Yayıncılık İletişim A.Ş. Ankara
8	Theoretical	Pascal Prensiple
	Preparation Work	Çıray, C. (2010). Akışkanlar Mekaniğine Giriş Birinci Kitap. ODTÜ Geliştirme Vakfı Yayıncılık İletişim A.Ş. Ankara
9	Preparation Work	Çıray, C. (2010). Akışkanlar Mekaniğine Giriş Birinci Kitap. ODTÜ Geliştirme Vakfı Yayıncılık İletişim A.Ş. Ankara
	Intermediate Exam	Midterm Exam
10	Theoretical	Manometers and barometers
	Preparation Work	Çıray, C. (2010). Akışkanlar Mekaniğine Giriş Birinci Kitap. ODTÜ Geliştirme Vakfı Yayıncılık İletişim A.Ş. Ankara
11	Theoretical	Density determination
	Preparation Work	Çıray, C. (2010). Akışkanlar Mekaniğine Giriş Birinci Kitap. ODTÜ Geliştirme Vakfı Yayıncılık İletişim A.Ş. Ankara





12	Theoretical	Hydrodynamics
	Preparation Work	Çıray, C. (2010). Akışkanlar Mekaniğine Giriş Birinci Kitap. ODTÜ Geliştirme Vakfı Yayıncılık İletişim A.Ş. Ankara
13	Theoretical	Moving flow
	Preparation Work	Çıray, C. (2010). Akışkanlar Mekaniğine Giriş Birinci Kitap. ODTÜ Geliştirme Vakfı Yayıncılık İletişim A.Ş. Ankara
14	Theoretical	Turbulent flow
	Preparation Work	Çıray, C. (2010). Akışkanlar Mekaniğine Giriş Birinci Kitap. ODTÜ Geliştirme Vakfı Yayıncılık İletişim A.Ş. Ankara
15	Theoretical	The Principle of Continuity Bernoulli prensibi
	Preparation Work	Çıray, C. (2010). Akışkanlar Mekaniğine Giriş Birinci Kitap. ODTÜ Geliştirme Vakfı Yayıncılık İletişim A.Ş. Ankara
16	Preparation Work	Çıray, C. (2010). Akışkanlar Mekaniğine Giriş Birinci Kitap. ODTÜ Geliştirme Vakfı Yayıncılık İletişim A.Ş. Ankara
	Final Exam	FINAL EXAM

### Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Assignment	14	0	1	14
Term Project	14	0	1	14
Reading	18	0	2	36
Midterm Examination	1	1	1	2
Final Examination	1	5	1	6
Total Workload (Hours)				100
[Total Workload (Hours) / 25*] = ECTS				4

\*25 hour workload is accepted as 1 ECTS

### Learning Outcomes

1	Understands the concept of density, pressure and states of matter.
2	Learns to teach density, pressure and states of matter.
3	Knows the tools used to measure pressure.
4	Measures pressure by using the right tools.
5	explain the factors affecting fluidity.

### Programme Outcomes (Science Teacher Education)

1	To be able to gain subject knowledge of profession in theory and practice in the learning process.
2	To be able to gain the competence of using the appropriate approach, strategy, method and technique for the instructional plans to be prepared in the learning process.
3	To be able to gain the skills of the teaching profession in the learning process.
4	To be able to implement teaching profession knowledge, skills, attitudes and habits related to the subject-matter in a real teaching and learning environment in the learning process.
5	To be able to comprehend contemporary approaches of education and the philosophy they are based on.
6	To be able to gain the basic skills such as comprehending, expressing, commenting, evaluating, being aware and enterprising, communicating, acknowledging the individual related to the subject-matter.
7	To be able to become individuals faithful to the Principles and Revolutions of Atatürk, be modern democratic, secular, protecting and developing one's country, being alive to the nation, respecting human rights, preserving the nature, not being discriminatory, giving importance to the traditions and customs, protecting the values
8	To be able to improve oneself in terms of sport, art and culture.
9	To be able to become individuals believing in lifelong learning.
10	To be able to gain the vision of being individuals who keep up with developments in social, economic, technological and scientific areas, who investigate the main reasons of World problems and try to contribute to the solutions of these problems.

### Contribution of Learning Outcomes to Programme Outcomes 1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High

	L1	L2	L3	L4
P1	3		3	
P2		3	3	
P3		3	3	





P6				3
P7				3
P8				3
P9				3
P10				3

