



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Fluid Mechanics II							
Course Code		FBÖ410		Couse 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 learn pressure, surface tension and viscosity.							
Course Content		Fluid movement pressure, Pressure drop along a rough pipe, Venturi pipe, Viscosity and viscosity coefficient, Optical and electrical properties of sols, General features of flow in pipes, Buckingham Pi Theorem, Stok Rule, Limit Speed, Determination of oil viscosity, Measurment of surface tension and capillarity, Diffusion and osmosis							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion, Project Based Study, Individual Study					
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	Fluid movement pressure
2	Theoretical	Pressure drop along a rough pipe
3	Theoretical	Measurement of flow velocity in a pipe
4	Theoretical	Venturi pipe
5	Theoretical	Venturi pipe
6	Theoretical	Viscosity and viscosity coefficient
7	Theoretical	Optical and electrical properties of sols
8	Theoretical	General features of flow in pipes
9	Intermediate Exam	Midterm exam
10	Theoretical	Buckingham Pi Theorem
11	Theoretical	Stok Rule Limit Speed
12	Theoretical	Determination of oil viscosity
13	Theoretical	Measurment of surface tension and capillarity
14	Theoretical	Diffusion and osmosis
15	Theoretical	Diffusion and osmosis
16	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	14	0	2	28
Midterm Examination	1	5	1	6
Final Examination	1	9	1	10
Total Workload (Hours)				100
[Total Workload (Hours) / 25*] = ECTS				4

*25 hour workload is accepted as 1 ECTS



Learning Outcomes

1	Understands the pressure reduction and learns how to teach.
2	Understands the viscosity and learns how to teach.
3	Understands the surface tension and learns how to teach.
4	Understands the diffusion and osmosis and learns how to teach.
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 Ataturk, be modern democratic, secular, protecting and deveoping 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	4	4	4
P2	3	3	3	4
P3	3	3	3	3
P4	3	4	4	4
P6	3	3	3	3

