



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Thermodynamics and Heat Transfer							
Course Code		AEK112		Course Level		Short Cycle (Associate's Degree)			
ECTS Credit	3	Workload	78 (Hours)	Theory	3	Practice	0	Laboratory	0
Objectives of the Course		Fundamental objective of the course is to ensure students to gain principles of thermodynamic and heat transfer.							
Course Content		Teaching fundamentals of thermodynamics and heat transfer; ensuring students to be competent on determining and resolving thermodynamic related issues with the alternative energy resources projects.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Demonstration, Individual Study					
Name of Lecturer(s)		Ins. Emre IŞIKLI							

Assessment Methods and Criteria

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

Recommended or Required Reading

1	Termodinamik Mühendislik Yaklaşımlarıyla
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Week	Weekly Detailed Course Contents	
1	Theoretical	Giriş ve Temel Kavramlar
2	Theoretical	Enerji Dönüşümü ve Genel Enerji Analizi
3	Theoretical	Saf Maddenin Özellikleri
4	Theoretical	Saf Maddenin Özellikleri
5	Theoretical	Kapalı Sistemlerin Enerji Analizi
6	Theoretical	Kütle ve Enerji Analizi
7	Theoretical	Kütle ve Enerji Analizi
8	Theoretical	Termodinamiğin ikinci yasası
9	Theoretical	Second law of thermodynamics
10	Theoretical	Entropy
11	Theoretical	Entropy
12	Theoretical	Isı Aktarım Mekanizmaları
13	Theoretical	Yatışkın Durumda Isı Aktarımı ve Isı Direnç Ağları
14	Theoretical	Zorlanmış Taşınım Isı Aktarımı
15	Theoretical	Zorlanmış Taşınım Isı Aktarımı
16	Final Exam	Final

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	13	0	2	26
Assignment	10	0	2	20
Reading	10	0	2	20
Midterm Examination	1	5	1	6
Final Examination	1	5	1	6
Total Workload (Hours)				78
[Total Workload (Hours) / 25*] = ECTS				3

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	
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2	
3	
4	
5	

Programme Outcomes (Alternative Energy Sources Technology)

1	To have knowledge about basic science and technology.
2	To have knowledge about basic energy and alternative energy sources.
3	To have knowledge about basic electrical and electronic laws.
4	To have knowledge about the installation and operation of energy facilities.
5	Learning the methods of recycling of waste and use of energy.
6	To have experience in energy generation and project design.

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

	L1	L2	L3	L4	L5
P1	5	5	5	5	5
P3	4	4	4	4	4

