AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Bioenergy Technologies								
Course Code	AEK215		Couse Level	Short Cycle (Associate's Degree)					
ECTS Credit	3	Workload	78 *(Hours)*	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	Students are expected to learn bio-energy types and biogas.								
Course Content	Bio-energy types, biogas, biogas production facilities, their usage and sustainability.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Individual Study								
Name of Lecturer(s)	Assoc. Prof. Hakan Can SÖYLEYİCİ								

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	70

Recommended or Required Reading	
1	Alternatif Enerji Kaynakları Yazar: Mustafa Acaroğlu

Week	Weekly Detailed Course Contents	
1	Theoretical	Energy consumption, reserves, conventional and renewable energy
2	Theoretical	Bioenergy as energy source, bioenergy types, classification
3	Theoretical	Biomass, biomass raw materials, biogas
4	Theoretical	Biogas production technics
5	Theoretical	Biogas production technics
6	Intermediate Exam	Midterm exam
7	Theoretical	Biogas production technics.
8	Theoretical	Purification of biogas
9	Theoretical	Purification of biogas
10	Theoretical	Economical and environmental assesment of biogas
11	Theoretical	Biogas usage
12	Theoretical	Biogas plants and example usages
13	Theoretical	Biogas plants and example usages
14	Theoretical	Biogas policies, marketing and sustainability
15	Theoretical	Final exam

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	13	0	2	26
Assignment	4	4	4	32
Project	2	2	2	8
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	
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	4	3	4	4	3
P2	5	5	5	5	5
P3	4	3	4	4	3
P4	3	5	3	3	5
P5	3	3	3	3	3
P6	3	5	3	3	5