



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Biogas Production From Agricultural and Plant Waste							
Course Code		AEK223		Course Level		Short Cycle (Associate's Degree)			
ECTS Credit	3	Workload	79 (Hours)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course		Students are expected to learn about recycling of agricultural and vegetative wastes; production methods for biogas.							
Course Content		Agricultural vegetative wastes, biogas production methods, establishment of facility, project preparation.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Case Study, 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
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Week	Weekly Detailed Course Contents	
1	Theoretical	Definition of agricultural and plant waste
2	Theoretical	Agricultural plants, energy plants
3	Theoretical	Agricultural plant waste and obtainment methods
4	Theoretical	Other plant waste and obtainment methods.
5	Theoretical	Other plant waste and obtainment methods.
6	Theoretical	Preparation of agricultural and plant waste
7	Intermediate Exam	Midterm exam
8	Theoretical	Preparation of agricultural and plant waste
9	Theoretical	Production plant project steps
10	Theoretical	Production plant project steps
11	Theoretical	Production plant project steps
12	Theoretical	Examples of biogas production plants
13	Theoretical	Examples of biogas production plants
14	Theoretical	Examples of biogas production plants
15	Final Exam	Final exam

### Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	13	1	2	39
Assignment	6	2	1	18
Project	1	2	2	4
Individual Work	6	0	1	6
Midterm Examination	1	5	1	6
Final Examination	1	5	1	6
Total Workload (Hours)				79
[Total Workload (Hours) / 25*] = ECTS				3

\*25 hour workload is accepted as 1 ECTS

### Learning Outcomes

1	Learns biogas production.
2	Learns usage of agricultural and plant waste products.



3	Learns production plants and conceptualize project.
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	4	4		
P2	5	5	4	5	5
P3				4	4
P4			5		
P5	5	5		5	5
P6	4	4	5		

