



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Course Name Solar Power And Use In Agriculture							
Course Code		ZTM543		Course Level		Second Cycle (Master's Degree)			
ECTS Credit	8	Workload	200 (Hours)	Theory	3	Practice	0	Laboratory	0
Objectives of the Course		The aim of this course is that information is given to the students about alternative energy resources and about the energy which is an important input in agriculture							
Course Content		The course provides information about the overall energy world and Turkey's general energy and alternative energy potential is revealed, the basic parameters of solar energy is defined; their engineering calculations are shown. Information is given about the application areas of alternative energies in agriculture.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Project Based Study, Individual Study					
Name of Lecturer(s)		Prof. Ahmet KILIÇKAN							

### Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

### Recommended or Required Reading

1	Alternative Energy Resources Graduate Course Notes
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Week	Weekly Detailed Course Contents	
1	Theoretical	General energy information
2	Theoretical	Solar energy technology and application areas in agriculture
3	Theoretical	Solar energy technology and application areas in agriculture
4	Theoretical	Solar energy technology and application areas in agriculture
5	Theoretical	Solar energy technology and application areas in agriculture
6	Theoretical	Solar energy technology and application areas in agriculture
7	Intermediate Exam	Midterm Exam
8	Theoretical	Basic elements of solar energy systems and working principle of the system
9	Theoretical	Basic elements of solar energy systems and working principle of the system
10	Theoretical	Basic elements of solar energy systems and working principle of the system
11	Theoretical	Basic elements of solar energy systems and working principle of the system
12	Theoretical	Basic elements of solar energy systems and working principle of the system
13	Theoretical	Optimization of energy
14	Final Exam	Final Exam

### Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	4	3	98
Assignment	6	10	5	90
Midterm Examination	1	3	3	6
Final Examination	1	3	3	6
Total Workload (Hours)				200
[Total Workload (Hours) / 25*] = ECTS				8

\*25 hour workload is accepted as 1 ECTS

### Learning Outcomes

1	Learn the general energy information
2	Learn the solar energy technology and application possibilities in agriculture
3	Recognize the system elements of solar energy technology



4	Analyze the working principle of solar energy technology.
5	Optimization of energy

**Programme Outcomes (Agricultural Machinery Master)**

1	Identification, formulation and solving the problems in the field of Agricultural Machinery
2	The ability to use modern engineering tools and techniques
3	The ability to use the information, which is obtained by following the scientific and technological developments, in the academic life and practice.
4	The ability to evaluate multi-faced relationship between them by understanding interaction among agricultural technology, soil, plants and animals
5	Professionalism and ethical responsibility
6	The ability to work in disciplinary and multi-disciplinary teams
7	The ability to communicate effectively
8	The ability to do research for accessing information and to use data base and other resources
9	The ability to do analyze and interpret the experimental results and the design of experiment
10	The ability to identify and interpret knowledge of current professional issues and events
11	The ability to get aware the universal and social effects of engineering solutions and applications
12	Accordance with the requirements of science and technology, ability to use scientific knowledge creative

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

	L1	L3
P1	5	
P2	5	4
P3	5	
P4	4	4
P5	4	4
P6	4	4
P7	4	4
P8		4
P9		4
P10		4
P12	4	

