



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Agricultural Waste Assessment Techniques							
Course Code		ZTM619		Course Level		Third Cycle (Doctorate Degree)			
ECTS Credit	7	Workload	178 ( <i>Hours</i> )	Theory	3	Practice	0	Laboratory	0
Objectives of the Course		The aim of this course is to provide the understanding of physical and chemical properties of agricultural wastes and residues, raw materials used in composting process, composting methods and comparison, composting mechanization, system selection criterion, planning principles of compost plants, standards of compost,							
Course Content		The importance of evaluating of agricultural residues and wastes, the properties and usage possibilities of compost materials, mechanization systems and selection criterion of composting processes, machines used in chopping process, planning principles of compost plant, standards of compost							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion, Case Study, Individual Study					
Name of Lecturer(s)									

### Assessment Methods and Criteria

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

### Recommended or Required Reading

1	Haug, R.T.1980 Compost Engineering. Ann Arbor Science Michigan, USA, ISBN: 0-250-40347-1, 653 p. Golueke, C.G.1974 Composting. A study of the process and its principles. Rodale Press Co., USA, ISBN: 0-87857-051-9 110 p.
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Week	Weekly Detailed Course Contents	
1	Theoretical	Physical and chemical properties of agricultural wastes and residues and classification
2	Theoretical	Storage and management of agricultural wastes and residues,
3	Theoretical	Properties of compost material
4	Theoretical	Effective factors on composting processes
5	Theoretical	Composting methods and selection criterion
6	Theoretical	Mechanization systems applied in composting processes
7	Intermediate Exam	Term exam
8	Theoretical	Selection criterion of mechanization systems
9	Theoretical	Machines used in chopping process
10	Theoretical	Compost mixing machines
11	Theoretical	Compost sieving machines
12	Theoretical	Planning principles of compost plant
13	Theoretical	Classification of compost
14	Theoretical	Standards of compost
15	Theoretical	Packaging and storage systems of compost
16	Final Exam	Final exam

### Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	2	3	70
Assignment	14	0	4	56
Term Project	1	0	30	30
Midterm Examination	1	10	1	11



Final Examination	1	10	1	11
Total Workload (Hours)				178
[Total Workload (Hours) / 25*] = ECTS				7
*25 hour workload is accepted as 1 ECTS				

### Learning Outcomes

1	Understanding the importance of evaluating of agricultural residues and wastes
2	Understanding the properties and usage possibilities of compost
3	Understanding the composting processes
4	Understanding mechanization systems and selection criterion
5	Understanding the working principles of compost processing machines
6	Understanding the planning principles of compost plant.
7	Understanding the compost storage methods

### Programme Outcomes (Agricultural Machinery Doctorate)

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	L2	L3	L4	L5	L6	L7
P1	5	5	5	5	5	5	5
P2	5	5	5	5	5	5	5
P3	5	5	5	5	5	5	5
P4	5	5	5	5	5	5	5
P5	1	1	1	1	1	1	1
P6	1	1	1	1	1	1	1
P8	2	2	2	2	2	2	2
P9	2	2	2	2	2	2	2
P10	2	2	2	2	2	2	2
P11	4	4	4	4	4	4	4
P12	3	3	3	3	3	3	3

