



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Mechanization Applications in Barn							
Course Code		ZTM603		Course Level		Third Cycle (Doctorate Degree)			
ECTS Credit	7	Workload	172 ( <i>Hours</i> )	Theory	3	Practice	0	Laboratory	0
Objectives of the Course		Objective of the Course; mechanization in the regulation of the conditions in the barn, the latest techniques used in the barn feeders and drinkers, automatically controlled feed dispensers, new systems used in Fertilizer mechanization (solid and liquid), manure storage, manure excretion field facilities, Biogas production technology, fertilizer to inform students about the latest techniques applied to reducing the impact of environmental pollution.							
Course Content		Introduction to livestock farming mechanization, Feed Mechanization, feeding mechanization, animal husbandry, irrigation mechanization, fertilizer cleaning and evaluation of mechanization, Milking and Cooling Techniques, Computer Aided Herd Management Techniques.							
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	Hayvancılıkta Mekanizasyon.1993. Ayık,M., Ankara Üniversitesi Ziraat Fakültesi Yayınları: 1300. Ders Kitabı 375, Ankara.
2	Hayvancılıkta Mekanizasyon1 Çiftlik Gübresi Mekanizasyonu, 1996. Yıldız,O., Akdeniz Üniv. Yayın No:55,Antalya.
3	Hayvansal Üretim Makinaları. 1993. Ülger,P.,Kayışoğlu,B., Trakya Ün.Tekirdağ Ziraat Fak. Yayın No:181, Ders Kitabı No:18,Tekirdağ.

Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction to mechanization in the barn
2	Theoretical	Stables features
3	Theoretical	Mechanization in the regulation of the conditions in the barn
4	Theoretical	Feeders and drinkers latest techniques used in the barn,
5	Theoretical	Automatically controlled feed dispensers,
6	Theoretical	New systems used on Fertilizer mechanization (solid and liquid)
7	Intermediate Exam	Midterm Exam
8	Theoretical	Mechanization of farming relevant to Precision farming
9	Theoretical	Manure storages
10	Theoretical	Expulsion facilities of manure on the field
11	Theoretical	Biogas production technology
12	Theoretical	Biogas production technology
13	Theoretical	Biogas production technology
14	Theoretical	The latest techniques used in reducing the impact of environmental pollution of fertilizers.
15	Theoretical	The latest techniques used in reducing the impact of environmental pollution of fertilizers.
16	Final Exam	Final Exam

### Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	2	2	56
Lecture - Practice	14	2	2	56
Assignment	14	0	2	28
Term Project	1	0	20	20
Midterm Examination	1	5	1	6



Final Examination	1	5	1	6
Total Workload (Hours)				172
[Total Workload (Hours) / 25*] = ECTS				7
*25 hour workload is accepted as 1 ECTS				

### Learning Outcomes

1	Understand the importance of animal production mechanization in the barn
2	Learning the feeding mechanization and machines and grasp the workings and settings
3	Understanding of animal husbandry, irrigation and mechanization and to learn about the machines and their settings
4	Learning the Fertilizer and cleaning mechanization and understanding the settings
5	Learning the Fertilizer and cleaning mechanization and understanding the settings

### 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
P1	4	4	4	4
P2		5	5	5
P3	4	4	4	4
P4	5	5	5	5
P10	5	5	5	5

