



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Principles of Agricultural Machinery Construction							
Course Code		ZTM609		Course Level		Third Cycle (Doctorate Degree)			
ECTS Credit	7	Workload	177 (Hours)	Theory	3	Practice	0	Laboratory	0
Objectives of the Course		The aim of the course, students gain the ability to design agricultural machinery. To this end, further strength in selected areas will be examined and examples of topics studied.							
Course Content		Surface states, criteria, symbols, and Representation. Tolerances, length and angle measurements. Machinery used in the manufacture exercises. Shape and position tolerances, symbols, geometric tolerancing. Screws, bolts, and connections with stud. Wedge joins. Resource links, and other forms of connection, manufacturing formal study of machine parts to be drawn, Pictures of the construction sketch, Construction, construction and assembly drawing and parts list parts filling conditions.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion, Case Study, Project Based Study, Individual Study, Problem Solving					
Name of Lecturer(s)									

### Assessment Methods and Criteria

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

### Recommended or Required Reading

1	Makine Elemanları ve Konstrüksiyon Örnekleri. Bablık F,
2	Makine Meslek Resmi Cilt 1 ve 2, Şen, İ.Z., Özçilingir, N., (2000), İstanbul.
3	Teknik resim, Cilt 2. Bağcı, M., 2003

Week	Weekly Detailed Course Contents	
1	Theoretical	Surface states, criteria, and demonstration of symbols
2	Theoretical	Tolerances, length and angle measurements
3	Theoretical	ISO tolerance and exercise plan, machinery manufacturing tolerances and exercises
4	Theoretical	Geometric tolerances, symbols
5	Theoretical	Screws, bolts, studs and joints
6	Theoretical	Wedge joins
7	Theoretical	welded joints
8	Intermediate Exam	Midterm Exam
9	Theoretical	Manufacturing of machine parts to be drawn image analysis, surface models
10	Theoretical	Pictures of the construction drawing and track construction
11	Theoretical	Assembly drawings principles
12	Theoretical	list numbering and charging principles
13	Theoretical	System is a simple piece of construction and construction photos
14	Theoretical	Assembly drawing applications
15	Theoretical	Assembly drawing applications
16	Final Exam	final exam

### Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	2	3	70
Assignment	14	0	2	28
Term Project	1	0	25	25
Reading	14	0	2	28
Midterm Examination	1	12	1	13



Final Examination	1	12	1	13
Total Workload (Hours)				177
[Total Workload (Hours) / 25*] = ECTS				7
*25 hour workload is accepted as 1 ECTS				

### Learning Outcomes

1	Engineering Design to solve the problems encountered. (Design Process, Decision Making, Computer Aided Design, Materials Selection, Economics,)
2	A-axis, two-axis and three-axis to analyze stress, according to the United states of strain to make lightweight construction and sizing.
3	Engineering material, surface quality, clutch friction and wear issues.
4	Selectable mechanical manufacturing and operations.
5	Under static and variable load strain, fracture hypothesis states of continuous grip strength.
6	Lightweight construction and to produce applications.
7	Combined strength of the sample solutions to make states
8	A front end loader, bucket, or a single-axle farm truck reverse case, it is important organs of the sizing of business
9	Ergonomics-related vibration, sound and noise control can make.
10	Machinery Safety Directive able to grasp and application of a machine instruction manual sample preparation. (2006/42/AT).

### 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	L8	L9	L10
P1	1							5	5	
P2	5					4				
P3	4									4
P7	4									4
P8	4			4						
P9		4		4		4				
P10	5									
P11	5	4	5	5	5	5	5	5	5	5
P12	5					4				

