



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Machine Elements							
Course Code		MSİ103		Couese Level		Short Cycle (Associate's Degree)			
ECTS Credit	2	Workload	50 (Hours)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course		The main objectives of the course are; used in mechanical systems of students analysis and design of machine elements to be foundations. Students in machine elements to help you understand the various problems that arise.							
Course Content		Defining the design process and considering the design parameters, fatigue of materials, machine elements identification of tolerances, moment and motion transmission required sizing and analysis of shafts, bolt-like coupling calculation principles							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation)					
Name of Lecturer(s)									

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	70

Recommended or Required Reading

1	Mustafa AKKURT, Machine Elements Volume I and II (2003), Birsen Publishing House
2	Cahit KURBANOĞLU, Machine Elements (2005), Nobel Publishing House

Week	Weekly Detailed Course Contents	
1	Theoretical	Recognition and understanding of the main differences between force and work machines
2	Theoretical	Recognition and understanding of major stresses in machine elements and Hooke's law
3	Theoretical	Recognize and understand the technical properties of materials used in the production of machine elements
4	Theoretical	Recognition of unsolvable fasteners (rivets), examining the difference between them and understanding
5	Theoretical	To be able to identify the insoluble fasteners (welds), to examine the difference between them and to understand
6	Theoretical	Recognition of non-soluble fasteners (brazing, bonding), examining the difference between them and understanding
7	Theoretical	Recognition and understanding of fasteners (bolts, nuts, pins, wedges, ...)
8	Intermediate Exam	Midterm
9	Theoretical	Recognition and comprehension of fastenable fasteners (bolts, nuts, pins, wedges, ..)
10	Theoretical	Recognition and comprehension of energy storage elements (springs)
11	Theoretical	Recognition and comprehension of energy storage elements (springs)
12	Theoretical	Gripping and coupling couplings
13	Theoretical	To be able to examine the difference between power and motion transfer systems and elements, to understand problems and to solve problems related to simple power and motion transfer systems
14	Theoretical	To be able to examine the difference between power and motion transfer systems and elements, to understand problems and to solve problems related to simple power and motion transfer systems
15	Theoretical	To be able to examine the difference between power and motion transfer systems and elements, to understand problems and to solve problems related to simple power and motion transfer systems
16	Final Exam	Final Exam



Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Midterm Examination	1	8	1	9
Final Examination	1	12	1	13
Total Workload (Hours)				50
[Total Workload (Hours) / 25*] = ECTS				2

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	To be able to comprehend machine elements, materials and properties
2	Ability to recognize and comprehend the main differences between force and work machines
3	To know the connection elements and to understand the basic properties
4	Recognition of energy storage elements and solving simple problems related to them
5	Recognizing motion and power transmission elements and solving simple problems related to them

Programme Outcomes (Fruit and Vegetables Processing Technology)

1	To be able to understand social, cultural and social responsibilities and to have the ability to follow national and international contemporary
2	In line with the principles and reforms of Atatürk; Adopting the national, moral, spiritual and cultural values ??of the Turkish Nation, open to universal and contemporary developments, the Turkish language is a rich, rooted and productive language; love and awareness of language; to have the ability to use the foreign language sufficiently and with the habit of reading and professionally.
3	To know the basic hardware units and operating systems of computer, internet to be able to prepare documents, spreadsheets and presentations on the computer by using office programs
4	Gains the theoretical and practical knowledge at the basic level in mathematics, science and professional fields
5	Recognize and analyze the problems with the knowledge of fruit and vegetable technology in the field, interpret the data and propose solutions.
6	According to the prepared work plan and program in laboratories, it can carry out the necessary works to obtain the desired quality product.
7	To have professional and ethical responsibility in business life.
8	It is open to development and change, follows scientific social and cultural innovations and constantly improves itself.

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	2	2	2	2	2
P2	2	2	2	2	2
P3	1	1	1	1	1
P4	3	3	3	3	2
P5	4	4	4	4	4
P6	3	3	3	3	3
P7	2	2	2	2	2
P8	2	2	2	3	3

