



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Introduction to Machine Elements							
Course Code		OTT207		Couse Level		Short Cycle (Associate's Degree)			
ECTS Credit	4	Workload	100 ( <i>Hours</i> )	Theory	3	Practice	1	Laboratory	0
Objectives of the Course		To comprehend the basic strength in design to calculate the strength of the machine elements Aim-oriented in increasing selectable competences.							
Course Content		Detachable fasteners, Shaft and axles, Bearing elements							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Case Study, Problem Solving					
Name of Lecturer(s)		Ins. Mehmet TEMEL							

### Assessment Methods and Criteria

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

### Recommended or Required Reading

1	Machine Elements Lecture Notes
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Week	Weekly Detailed Course Contents	
1	Theoretical	Non-removable fasteners
2	Theoretical	Non-removable fasteners
3	Theoretical	Non-removable fasteners
4	Theoretical	Non-removable fasteners
5	Theoretical	Non-removable fasteners
6	Theoretical	Non-removable fasteners
7	Theoretical	Non-removable fasteners
8	Theoretical	Non-removable fasteners
9	Intermediate Exam	Midterm
10	Theoretical	Detachable fasteners
11	Theoretical	Shaft and axles
12	Theoretical	Shaft and axles
13	Theoretical	Shaft and axles
14	Theoretical	Bearing elements
15	Theoretical	Bearing elements
16	Theoretical	Semester final exam

### Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	1	3	56
Lecture - Practice	14	0	1	14
Assignment	2	2	2	8
Term Project	1	5	5	10
Midterm Examination	1	5	1	6
Final Examination	1	5	1	6
Total Workload (Hours)				100
[Total Workload (Hours) / 25*] = ECTS				4

\*25 hour workload is accepted as 1 ECTS

### Learning Outcomes

1	Will be able to dimension the non-detachable fasteners and make control calculations.
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2	Will be able to dimension the removable fasteners and make control calculations.
3	Shaft and axles will be able to size and control calculations
4	Will be able to design and control bearing elements
5	Define the effects of loads and forces on machine elements.

**Programme Outcomes (Automotive Technology)**

1	To be able to interpret and evaluate data, identify problems, analyze them, and develop evidence-based solutions by using basic knowledge and skills in the field.
2	Must be able to choose and effectively use the modern techniques, tools and information technologies necessary for field related applications.
3	Must be able to gain practical skills by examining relevant processes in industry and service sector on site.
4	They must be able to produce solutions, take responsibility for teams or do individual work when they encounter situations unforeseen in the field related applications.
5	Awareness of the need for lifelong learning; it must be able to follow the developments in science and technology and to constantly renew itself.
6	Must be able to use computer software and hardware at the basic level required by the field
7	Must have job security, worker health, environmental protection knowledge and quality awareness.
8	He must possess a level of foreign language knowledge that is capable of following the innovations in his area of expertise and communication techniques.
9	Must be able to acquire basic theoretical and practical knowledge about the field in mathematics, science and basic engineering.
10	It should have the ability to plan the processes / processes of the Automotive Program to meet the expectations of the sector.
11	To be able to design the systems and components related to the field by using technical drawing, computer aided drawing, designing using simulation programs and using various softwares, to be able to make basic sizing calculations, to be able to master professional plans and projects.

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

	L1	L2	L3	L4	L5
P3	4	4	4	4	4
P4	4	4	4	4	4
P10	3	3	3	4	4
P11	4	4	4	4	4

