

ME 307-Machine Elements-I

Introduction



Assist. Prof. Dr. Hakan ÇANDAR
Assist. Prof. Dr. Sadık OLGUNER

September, 2024
Gaziantep

COURSE INFO

- Code&Title : ME 307 – Machine Elements I
- Lecturers :
 - Asst. Prof. Dr. Hakan ÇANDAR
 - Asst. Prof. Dr. Sadık OLGUNER
- Day and hours :
 - FIRST EDUCATION
 - Monday 08:30-10:10 (MD14-15)
 - Wednesday 13:30-15:10 (MD15-16)
 - SECOND EDUCATION
 - Monday 17:00-18:40 (MD14-15)
 - Wednesday 20:40-22:20 (MD15-16)
- Text Book : Shigley's Mech. Eng. Design
- Recom. Book : Machine Elements Solved Problems V1
 - (Blue Book) – Prof. Dr. İ. Hüseyin Filiz (Akademi Yayınevi)

NINTH EDITION IN SI UNITS

Shigley's Mechanical Engineering Design

RICHARD G. BUDYNAS
J. KEITH NISBETT



Solved Problems

Machine Elements

Volume 1



İ. Hüseyin FİLİZ



COURSE CONTENT

PROGRAMME 2024-2025 FALL

WEEK	DATE	CHAPTER	TOPICS
1	30.09.2024	1	Introduction
	02.10.2024	1	FBD and SF-BM diagrams
2	07.10.2024	2	Stress Analysis&Stress states
	09.10.2024	2	Loading cases, Mohr circle
3	14.10.2024	2	Tutorial-Stress analysis
	16.10.2024	2	Pressurized Cylinders
4	21.10.2024	3	Deflection Analysis
	23.10.2024	3	Tutorial-Castigliano's theorem
5	28.10.2024		Holiday
	30.10.2024	3	Buckling
6	04.11.2024	3	Tutorial-Buckling
	06.11.2024	4	Design for Static Strength-Failure Theories
7	11.11.2024	4	Tutorial- Design for Static Strength
	13.11.2024	4	Tutorial- Design for Static Strength
8	18.11.2024	1-4	Midterm-1
	20.11.2024	5	Fatigue Failure
9	25.11.2024	5	Fatigue Failure
	27.11.2024	5	Tutorial-Fatigue Failure
10	02.12.2024	5	Tutorial-Fatigue Failure
	04.12.2024	6	Tolerances&Fits
11	09.12.2024	6	Tutorial- Tolerances&Fits
	11.12.2024	7	Design of Power screws
12	16.12.2024	7	Tutorial-Design of Power screws
	18.12.2024	5-7	Midterm-2
13	23.12.2024	8	Design of bolted joints
	25.12.2024	8	Design of bolted joints
14	30.12.2024	8	Tutorial-Design of bolted joints
	01.01.2025		Holiday
15	06.01.2025	9	Design of riveted joints
	08.01.2025	9	Tutorial-Design of riveted joints

COURSE INFO

- Exams:
 - Midterm exam 1 (30%)
 - Stress Analysis
 - Pressurized cylinders
 - Deflection Analysis
 - Buckling Consideration
 - Design for static strength
 - Midterm exam 2 (30%)
 - Design for fatigue strength
 - Tolerances and fits
 - Design of power screws
 - Final exam (40%)

Grades

<u>Puan</u>	<u>Ders Notu</u>	<u>Katsayı</u>
95-100	AA	4,00
90-94	BA+	3,75
85-89	BA	3,50
80-84	BB+	3,25
75-79	BB	3,00
70-74	CB+	2,75
65-69	CB	2,50
60-64	CC+	2,25
55-59	CC	2,00
50-54	DC	1,50
45-49	DD	1,00
40-44	FD	0,50
<40	FF	0,00
Devamsız	NA	0,00