

YILDIZ TECHNICAL UNIVERSITY
MECHANICAL ENGINEERING DEPARTMENT

THERMODYNAMICS II – MAK2142

Spring 2023-2024

Course Outline

Instructor: Assoc. Prof. Dr. Zafer GEMİCİ, zgemici@yildiz.edu.tr,

Mechanical Engineering Faculty Dean Office and E1-Block, Room No: E1-22, Yıldız, Beşiktaş, İstanbul

Week 1	19.02.2024	Overview (2 hours)
Week 2	26.02.2024	Chapter 8 - Exergy (2 hours)
Week 3	04.03.2024	Chapter 9 - Gas Power Cycles (2 hours)
Week 4	11.03.2024	Chapter 9 - Gas Power Cycles (1.5 hours) + Quiz 1
	16.03.2024	Problem Session -1
Week 5	18.03.2024	Chapter 10 - Vapor and Combined Power Cycles (2 hour)
Week 6	25.03.2024	Chapter 10 - Vapor and Combined Power Cycles (1.5 hours) + Quiz 2
	30.03.2024	Problem Session -2
Week 7	01.04.2024	Chapter 11 - Refrigeration Cycles (2 hours)
Week 8	08.04.2024	Chapter 11 - Refrigeration Cycles (2 hours)
Week 9	15.04.2024	Midterm Exam
Week 10	22.04.2024	Chapter 13 - Gas Mixtures (2 hours)
Week 11	29.04.2024	Chapter 14 - Gas-Vapor Mixtures and Air Conditioning (1.5 hours) + Quiz 3
	04.05.2024	Problem Session -3
Week 12	06.05.2024	Chapter 14 - Gas-Vapor Mixtures and Air Conditioning (2 hours)
Week 13	13.05.2024	Chapter 15 - Chemical Reactions (1.5 hours) + Quiz 4
	18.05.2024	Problem Session -4
Week 14	20.05.2024	Chapter 15 - Chemical Reactions (2 hours)
		Final Examination

Textbook:	Thermodynamics: An Engineering Approach Yunus Çengel-Michael Boles, McGraw-Hill
Grading:	20% for Midterm 40% for Others (10% for each quiz) 40% for Final Exam
Notes:	- The problem sessions will be conducted via ZOOM on the specified dates. - Follow the page https://avesis.yildiz.edu.tr/zgemici to get course materials and announcements. - The textbook is required for the course since the course materials closely come from the book. - Both midterm and final examinations will be open-book or formula paper based. No other reference material other than a dictionary will be allowed. 70% attendance is mandatory. - Most examination questions will come (possibly with some modifications) from the end-of-chapter problems of the textbook. Students are encouraged to solve as many of those problems as possible. - Students are also suggested to study the upcoming topic before the lecture and solve a few questions after the lecture. The course has abstract topics and is difficult to understand, especially for the students whom English is not their mother language. Cheating, plagiarism, and any other misrepresentations are strictly prohibited. Students violating these rules receive severe sanctions including a failing grade in the course and, depending on the circumstances, possible expulsion from the School.