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Course Code	Course Name	Semester	Theory	Practice	Lab	Credit	ECTS
GEM114	Thermodynamics	2	2	0	0	3	4

Prerequisites	
Admission Requirements	

Language of Instruction	Turkish
Course Type	Compulsory
Course Level	Associate Degree
Objective	The objective of this course is to touch the curious minds of the engineers to be and support them towards creative thinking and problem solving in the world of thermodynamics with unlimited challenges towards improvement or elimination of engineering problems.
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References	

## Theory Topics

Week	Weekly Contents
1	Introduction and Basic Concepts
2	Energy, Energy Transfer and General Energy Analysis
3	Properties of Pure Substances
4	Energy Analysis of Closed Systems
5	Mass and Energy Analysis of Control Volumes (unsteady state cases)
6	Midterm Exam 1
7	Mass and Energy Analysis of Control Volumes (steady state cases)
8	The Second Law of Thermodynamics
9	Entropy
10	Entropy
11	Application of the 1st and 2nd laws of thermodynamics to SS and unsteady state cases
12	Otto Cycle
13	Diesel Cycle
14	Sample Problems and Solutions