

THERMODYNAMICS

1	Course Title:	THERMODYNAMICS	
2	Course Code:	MKNS215	
3	Type of Course:	Optional	
4	Level of Course:	Short Cycle	
5	Year of Study:	2	
6	Semester:	3	
7	ECTS Credits Allocated:	3.00	
8	Theoretical (hour/week):	2.00	
9	Practice (hour/week):	0.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:	None	
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Öğr.Gör. ESRA ÖZDEMİR	
15	Course Lecturers:		
16	Contact information of the Course Coordinator:	esraozdemir@uludag.edu.tr / 0224 773 60 42/ Uludağ Üniversitesi Yenişehir İbrahim Orhan MYO	
17	Website:		
18	Objective of the Course:	Gain qualifications related to the basic thermodynamic concepts, work, the laws of thermodynamics, cycles, engine cycles, power, efficiency expressions, theory of combustion and fuels.	
19	Contribution of the Course to Professional Development:		
20	Learning Outcomes:		
		1	Applies the basic equation, units and calculation methods used in the analysis of thermodynamics.
		2	Explains the location and the basic concepts of thermodynamics as a science, described the systems and their basic properties.
		3	Uses the reference tables in thermodynamic applications.
		4	Solves the problem related to work and heat.
		5	Analyses the laws of thermodynamics.
		6	Explains changes in states and the principles of overall conversion
		7	Analyses the ideal weather cycles (otto, diesel, hybrid loop).
		8	Calculates efficiency, power and work in internal combustion engines.
		9	Explains the classification and the physical and chemical properties of fuels.
		10	Explains combustion engines and engine knocking.
21	Course Content:		
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Week	Theoretical	Practice	
1	Thermodynamic concepts and definitions, Zeroth law of thermodynamics.		
2	Heat and work concepts and applications.		

ÖK3	5	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0
ÖK4	0	4	4	0	0	0	0	4	0	5	0	0	0	0	0	0
ÖK5	0	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0
ÖK6	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0
ÖK7	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0
ÖK8	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0
ÖK9	0	0	0	0	4	0	0	0	3	0	0	0	0	0	0	0
ÖK10	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	1 very low			2 low			3 Medium			4 High			5 Very High			