

AERODYNAMICS

1	Course Title:	AERODYNAMICS
2	Course Code:	MAK4427
3	Type of Course:	Optional
4	Level of Course:	First Cycle
5	Year of Study:	4
6	Semester:	7
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:	-
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Doç. Dr. ONUR YEMENİCİ
15	Course Lecturers:	-
16	Contact information of the Course Coordinator:	oseckin@uludag.edu.tr / 2242940910 / U.Ü. Müh. Fak. Mak. Müh. Bölümü BURSA
17	Website:	
18	Objective of the Course:	To give the fundamentals of incompressible aerodynamics and to solve basic aerodynamics problems.
19	Contribution of the Course to Professional Development:	To provide comprehensive knowledge on aerodynamics analyzes that they frequently encounter in their professional lives.
20	Learning Outcomes:	
	1	Know the basic equations for inviscid incompressible flow
	2	Find the potential and stream functions for the flow around bodies and calculate the pressure distribution
	3	Calculate the lift and moment coefficients by using thin airfoil theory
	4	Calculate the lift and drag for finite wings at different planforms
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21	Course Content:	
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Week	Theoretical	Practice
1	Aerodynamic forces and moments	
2	Dimensional analysis and similarity	
3	Models of the fluids, continuity and momentum equations, Drag of a 2-D body	
4	Fundamental equations of flow, pathlines, streamlines, streaklines	

ÖK2	4	4	0	2	0	0	4	0	0	0	0	0	0	0	0	0
ÖK3	4	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0
ÖK4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	1 very low			2 low			3 Medium			4 High			5 Very High			