	AERODYNAMICS											
1	Course Title:	AEROD'	YNAMICS									
2	Course Code:	MAK442	7									
3	Type of Course:	Optional										
4	Level of Course:	First Cyc	cle									
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 f	face									
14	Course Coordinator:	Doç. Dr.	ONUR YEMENİCİ									
15	Course Lecturers:	-										
16	Contact information of the Course Coordinator:	oseckin@ Bölümü	@uludag.edu.tr / 2242940910 / U.Ü. Müh. Fak. Mak. Müh. BURSA									
17	Website:											
18	Objective of the Course:		the fundamentals of incompressible aerodynamics and to sic aerodynamics problems.									
19	Contribution of the Course to Professional Development:		de comprehensive knowledge on aerodynamics analyzes r 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 bosies 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									
		5										
		6										
		7										
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21	Course Content:											
\\\ \ - \ \	Theoretical	Co	ourse Content:									
	Theoretical		Practice									
1	Aerodynamic forces and moments											
3	Dimensional analysis and similarity  Models of the fluids, continuity and											
	momentum equations, Drag of a 2-D	<u> </u>										
4	Fundamental equations of flow, pathl streamlines, streaklines	lines,										

5	Strea	ım fı	unctio	n. velo	ocity p	otentia	al.											
	fundamentals of inviscid incompressible flow								'									
6	Bernoulli's equation, pitot tube																	
7						m flow, circula			I									
8	Joukowski theorem																	
9	I. Mic	terr	n exai	m														
10						airfoils		а										
11	Thin airfoi		oil the	ory, sy	mme	tric and	d camb	pered										
12	12 Incompressible flow over finite wings, downwash and induced drag,the vortex flament, the Biot-Savart Law and Helmholtz theorems																	
13	Panel methods, lifting line theory, elliptical lift distribution																	
14																		
	l			·		-1/	4			A		D 000	4, -					
Activi	Activites									Number				Duration (hour)			Load (hour)	
Theore	Theoretical								He	Bertin	nd Smith	2,90	2.00 M.L., 2008, Aerody			for		
Practic	Practicals/Labs									0	0.0 ur	ia Omiti	0.00			0.00		
Self stu	dy an	ıd pı	epera	ition						14			2.00			28.00		
Homev	works									1		26.00			26.00			
PERINCI	EARN	IING	ACTI	VITIES	3		N	IUMBE	E W	₿IGHT		0.00			0.00			
Field S										0			0.00			0.00		
Midter	m exa	ms_					1		$\rightarrow$	30,00				4.00				
	Others									0			0.00	0.00				
Final F	xams	лоје	;Cl				1			100		4 00			4.00			
	Total Work Load									100.00					94.00			
Total work load/ 30 hr								1	70.00						3.00			
ECTS	Credit	of t	he Co	urse												3.00		
Contrib	oution	of F	inal E	xam to	Suc	cess G	rade		50	0.00								
Total 1								10	100.00									
Measu		nt an	d Eva	luatio	n Tec	hnique	s Use	d in th	ne Re	elative	evalua	ition						
<b>24</b>		<u>s</u> /	WOI	RKI	ΟΔΓ	TAB	LF											
25	<del>                                     </del>							FIE	ΔDN	IINC		OME	S TO	DP∩′	2 P V M	ME		
	25 CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME  QUALIFICATIONS																	
	F	Q1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ1 0	PQ11	PQ12	PQ1 3	PQ14	PQ15	PQ16	
ÖK1	2		2	0	0	0	0	4	0	0	0	0	0	0	0	0	0	
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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																
Contrib ution Level:	ution		2	2 low			3 Medium			4 High			5 Very High			