STRENGHT OF MATERIALS II										
1	Course Title:	STRENG	GHT OF MATERIALS II							
2	Course Code:	MAK200	4							
3	Type of Course:	Compuls	ory							
4	Level of Course:	First Cyc	le							
5	Year of Study:	2								
6	Semester:	4								
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 f	ace							
14	Course Coordinator:	Prof. Dr.	ALİ DURMUŞ							
15	Course Lecturers:	Prof. Dr. Reşat ÖZCAN								
16	Contact information of the Course Coordinator:	Doç. Dr. Ali DURMUŞ adurmus@uludag.edu.tr 0224 294 19 89 Uludağ Üniversitesi, Mühendislik-Mimarlık Fakültesi, Makine Mühendisliği Bölümü, 16059, Görükle, BURSA								
17	Website:									
18	Objective of the Course:	This course aims to introduce the detailed content of strength of materials and teach designing a machine part in such a way that there is no failure. Course goal is to provide students with an understanding of advanced topics concerning the response of materials and structural elements to applied forces and deformations.								
19	Contribution of the Course to Professional Development:									
20	Learning Outcomes:									
		1	The course enables students to analyze three dimensional complex stress problems.							
		2	Ability to calculate slope and deflections in beams.							
		3	Ability to explain stability problem and buckling theory.							
		4	Ability to compute critical load and stress in slender columns.							
		5	An ability to apply failure theories to investigate strength of various loading.							
		6	Ability to analyze torsion of non circular and thin walled sections.							
		7	Ability to solve strength problems by using energy method.							
		8	Ability to solve elastokinetics problems.							
		9								
		10								
21	Course Content:									
147	The second second	Co	burse Content:							
vveek			Practice							
1	Demnitions and content of course									

2	Three-dimensional stress analysis, stransformation	tress									
3	Stress transformation in the three dimensional stress problems										
4	Elastic curve, slope and deflection of	beams									
5	Slope and deflection of beams										
6	Theories of column, buckling in slend columns	ler									
7	Buckling										
8	Failure and yielding theories										
9	Failure and yielding theories										
10	Torsion of non-circular and thin-walle sections	ed									
11	Torsion of non-circular and thin-walle sections	ed									
12	Elastic strain energy in case of tensic compression, shear, torsion and ben	on, ding									
13	Energy methods and Castigliano's th	eories									
14	Elastokinetics										
22	Textbooks, References and/or Other Materials:		1. O. Sayman ve ark., "Mukavemet II", 2. Baskı, Dokuz Eylül Üniversitesi Mühendislik Fakültesi Yayınları No: 250, İzmir-1994, (in Turkish). 2. M. İnan, "Cisimlerin Mukavemeti", İTÜ Vakfı Yayınları, No: 25. (in Turkish).								
Activit	tes			Number	Duration (hour)	Total Work Load (hour)					
Theore	tical		1V (	P. Yayla, "Cisimleri M	, ukavemeti", Kocael	i28.00 i20niversitesi					
Practicals/Labs				0	0.00	0.00					
Self stu	dy and preperation		6	1.4H. Shames, "Introdu	 etlen To Solid Mec	ranks",Second					
Homew	vorks		-	0	0.00	0.00					
Project	\$		Pŕ	entice/Hall Internation	ଶ୍ରି.ମହ.	0.00					
Field S	tudies		-	0	0.00	0.00					
Miggerr	Assesment			1	15.00	15.00					
Others			(	0	0.00	0.00					
Final E	xams	R		1	19.00	19.00					
Total V	Vork Load					90.00					
Puiz w	vork load/ 30 hr	0	0.0	00		3.00					
ECTS	Credit of the Course					3.00					
Final E	xam	1	60	.00							
Total 2				100.00							
Contrib Succes	oution of Term (Year) Learning Activitie ss Grade	es to	40.00								
Contrib	oution of Final Exam to Success Grade	e	60.00								
Total			100.00								
Measu Course	rement and Evaluation Techniques Us	sed in the									
24 ECTS / WORK LOAD TABLE											

25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ1 0	PQ11	PQ12	PQ1 3	PQ14	PQ15	PQ16
ÖK1	4	4	5	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK2	4	4	5	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK3	4	4	5	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK4	4	4	5	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK5	4	4	5	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK6	4	4	5	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK7	4	4	5	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK8	4	4	5	0	0	0	0	0	0	0	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contrib ution Level:	rib 1 very low n el:			2 low			3 Medium			4 High			5 Very High			