STRENGTH OF MATERIALS									
1	Course Title:	STRENG	GTH OF MATERIALS						
2	Course Code:	MKNS20	9						
3	Type of Course:	Optional							
4	Level of Course:	Short Cy	cle						
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:	Doç. Dr. GÖKHAN SEVİLGEN							
15	Course Lecturers:	Doç.Dr.Abdil KUŞ, Doç.Dr.Yahya IŞIK, Öğr.Gör.Zafer YILDIZ							
16	Contact information of the Course Coordinator:	gsevilgen@uludag.edu.tr, 0 224 573 98 62, Tozkoparan Caddesi Sanayi Sokak PTT karşısı Orhangazi/BURSA							
17	Website:								
18	Objective of the Course:	The objective of this course is to understand the basic concepts of strength of materials according to design and apply basic calculations of strength materials to the calculations of the dimensioning of machine elements							
19	Contribution of the Course to Professional Development:								
20	Learning Outcomes:								
		1	Definition of the strength values of basic materials						
		2	Calculations of the stress and strain for basic machine elements having static loads such as tensile compressive flexural torsional buckling loads						
		3	The usage of stress strain diagram for assessment of strength of materials and strains.						
		4	The calculations of strain values as a result of thermal stresses.						
		5	The understanding of design criteria of thin-walled pressure vessels						
		6							
		7							
		8							
		9							
		10							
21	Course Content:								
	Course Content:								
Week	Theoretical		Practice						
1	Outer and inner forces, support type reaction forces	s and							

2	General concepts of strength of mate Stres types, a simple tensile test, stra strength values of materials	erials : ain, the							
3	General concepts of strength of materials	erials :							
4	Calculation of inertia moments of cro sections	SS							
5	The vertical shear force and bending in beams	moment							
6	The vertical shear force and bending in beams	moment							
7	The vertical shear force and bending in beams	moment							
8	Midterm exam / Course review								
9	Torsional stress and related calculati	ons							
10	Torsional stress and related calculati	ons							
11	Buckling stress and related calculation (stability control)	ons							
12	Buckling stress and related calculation (stability control)	ons							
13	Stresses in thin-walled pressure vess	sels							
14	Stresses in thin-walled pressure vess	sels							
22 Activit	Textbooks, References and/or Other Materials: CeS		1- M	Sayman, O., Aksoy, S <u>ukavemet I, Dokuz Ey</u> Number	ül Üniversitesi Müh Duration (hour)	t, H., endislik Total Work Load (hour)			
Theore	tical		3	Mayla, P., Cisimlerin I	Aukavemeti (Teori	<b>⁄28Ç002</b> ümlü			
Practic	als/Labs		Б	0	0.00	0.00			
Self stu	dy and preperation		4	Bavcı, M., Arpacı, A.,	Mgavemet, ISBN:	<u>97.505</u> 11-106-			
Homew	vorks			0	0.00	0.00			
Project	8		IS	BN: 975-295-187-2, B	<del>ള</del> ്ക്ക്ayınları, 2003	dstanbul,			
Field S	tudies			0	0.00	0.00			
Mi <b>gig</b> err	Assesment			1	4.00	4.00			
Others	•			0	0.00	0.00			
Final E	xams	к 1		1	<del>6.00</del>	6.00			
Total V	Vork Load					90.00			
Total w	vork load/ 30 hr	0		00		3.00			
ECTS	Credit of the Course					3.00			
	Aani			0.00					
Caratrila	ution of Torre (Moor) Looming Activiti	2	100.00						
Succes	socion of Term (Year) Learning Activitiess Grade	es to	40.00						
Contrib	oution of Final Exam to Success Grade	Э	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	0	0	0	5	0	0	0	1	0	0	0	0	0	0	0	0
ÖK2	0	0	0	0	0	0	5	1	0	0	0	0	0	0	0	0
ÖK3	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
ÖK4	0	0	0	0	0	0	4	1	0	0	0	0	0	0	0	0
ÖK5	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contrib ution Level:	1 \	1 very low 2 low			3 Medium			4 High			5 Very High					