	DYNAMICS (	OF ME	CHANICAL SYSTEMS						
1	Course Title:	DYNAM	CS OF MECHANICAL SYSTEMS						
2	Course Code:	MAK526	3						
3	Type of Course:	Optional							
4	Level of Course:	Second	Cycle						
5	Year of Study:	1							
6	Semester:	1							
7	ECTS Credits Allocated:	6.00							
8	Theoretical (hour/week):	3.00							
9	Practice (hour/week):	0.00							
10	Laboratory (hour/week):	0							
11	Prerequisites:	None							
12	Language:	Turkish							
13	Mode of Delivery:	Face to f	face						
14	Course Coordinator:	Doç. Dr.	SEVDA TELLİ						
15	Course Lecturers:								
16	Contact information of the Course Coordinator:	sevda@	uludag.edu.tr						
17	Website:								
18	Objective of the Course:	To give the necessary concepts for the dynamic analysis of mechanical systems. To show the use of different methods in deriving equations of motion representing the motions of these systems.							
19	Contribution of the Course to Professional Development:	Students taking this course; They can model the dynamics of a mechanical system, derive and analyze the equations of motion. They can apply the basic principles of dynamics to mechanisms and machines.							
20	Learning Outcomes:								
		1	To be able to build a dynamic model of a mechanical system.						
		2	To be able to derive the equation of motion of the mechanical system.						
		3	To be able to analyze the equations of motion.						
		4	To be able to apply the basic principles of dynamics to machines and mechanisms.						
		5							
		6							
		7							
		8							
		9							
		10							
21	Course Content:								
		Co	burse Content:						
Week	I heoretical		Practice						
1									
2	Degrees of Freedom								
3	Rigid Body Kinematics								

4	Princip	of Vir	tuel W	/orks															
5	Principle of Virtuel Power																		
6	Generalized Coordinates																		
7	Conservative Forces and Potential Function																		
8	Lagrar	e Equa	ations																
9	Lagrar	e Mult	iplier N	Netho	d														
10	Exercises																		
11	Hamilton's Principle																		
12	Vibration of Elastic Beams-Longitudinal Vibrations																		
13	Transverse Vibrations of Wires																		
14	Bending Vibrations of Elastic Beams																		
22	Textbooks, References and/or Other Materials:									-Meirovitch, L., Methods of Analytical Dynamics, Mc. Graw Hill Book Company.2004 -Wells, D.,A.,Theory and Problems of Lagrangian Dynamics, Mc. Graw Hill Book Company.1967									
23	Asses	me	nt																
TERM L	EARNI	NG	ACTI	VITIES	;		N	IUMBE	E WI	EIGHT									
NA: It and							R	2											
Activit	ctivites									Numb	ber		Dura	ition (	Total Work Load (hour)				
Fhedre	nædir <b>exiaen</b> 1									60140					42.00	12.00			
Practic	icticals/Labs									0					0.00				
Sentsile	ntsioution of Jreparation) Learning Activities to									40190				4.00			56.00		
Homew	neworks									1				66.00					
Fojeci	ects									e <sup>0</sup> 00			0.00			0.00			
Field S	d Studies									0.00 0.00					0.00				
Mietaeun	aterrements and Evaluation Techniques Used in the F										Relative evaluation is used the course. 8.00								
Others	ners										0.00					0.00			
Final E	a Exams									1			8.00		8.00				
Total V	al Work Load													180.00					
Total w	al work load/ 30 hr										6.00								
ECTS	S Credit of the Course									6.00									
25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS																		
	PC	<b>21</b>	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ1 0	PQ11	PQ12	PQ1 3	PQ14	PQ15	PQ16		
ÖK1	4		5	3	2	0	0	0	0	0	0	0	0	0	0	0	0		
ÖK2	4		4	3	2	0	0	0	0	0	0	0	0	0	0	0	0		
ÖK3	4		5	3	2	0	0	0	0	0	0	0	0	0	0	0	0		
ÖK4	4		4	3	2	0	0	0	0	0	0	0	0	0	0	0	0		

ÖK5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contrib 1 very low ution Level:				2 low			3 Medium			4 High			5 Very High			