	THEORY OF TANG	ENT A	ND COTANGENT BUNDLES						
1	Course Title:	THEORY	OF TANGENT AND COTANGENT BUNDLES						
2	Course Code:	MAT6329	9						
3	Type of Course:	Optional							
4	Level of Course:	Third Cyc	cle						
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:								
12	Language:	Turkish							
13	Mode of Delivery:	Face to f	ace						
14	Course Coordinator:	Prof. Dr.	CENGIZHAN MURATHAN						
15	Course Lecturers:								
16	Contact information of the Course Coordinator:	cengiz@	uludag.edu.tr						
17	Website:								
18	Objective of the Course:	Learn bu	ndle theory.						
19	Contribution of the Course to Professional Development:	The stud	student learns lift theory.						
20	Learning Outcomes:								
		1	Learn tanjan bundle theory						
		2	Learn complete ant vertical lift						
		3	Learn horizontal lift						
		4	Learn Sasalk metric on tanjant bundle						
		5	Learn cotanjant bundle						
		6	Learn vertical and horizontal lift of forms						
		7							
		8							
		9							
24	Course Content:	10							
21	Course Content.	Co	urse Content:						
Week	Theoretical		Practice						
1	Tanjant bundle								
2	Vertical lift and complete lift								
3	Lift derivations								
4	Lie derivatievs								
5	Horizontal lifts of functions and vector	or fields							
6	Horizontal lifts of tensor fields								
7	Almost complex structures in a Tana bundle	jant							

8	Metrics on tanjant bundle							
9	Cotanjant bundle							
10	complete lifts of forms							
11	Comple lifts of Derivations on Cotanjabundle	ant						
12	Almost complex structures in the cotabundle	anjant						
13	Prolangations of tensor fields							
14	Jet bundles							
22	Textbooks, References and/or Other Materials:		0.00 0.00 0.00 100.00 100.00 100.00 100.00					
23	Assesment							
TERM L	LEARNING ACTIVITIES	NUMBE R	WEIGHT					
Midterr	n Exam	0	0.00					
Quiz		0	0.00					
Home	work-project	0	0.00					
Final E	xam	1	100.00					
Total		1	100.00					
	oution of Term (Year) Learning Activities S Grade	es to	0.00					
Contrib	oution of Final Exam to Success Grade	)	100.00					
Total			100.00					
Measu Course		sed in the	The system of relative evaluation is applied					
24	ECTS / WORK LOAD TABLE							

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	3.00	42.00
Practicals/Labs	0	0.00	0.00
Self study and preperation	11	11.00	121.00
Homeworks	0	0.00	0.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	0	0.00	0.00
Others	1	10.00	10.00
Final Exams	1	7.00	7.00
Total Work Load			180.00
Total work load/ 30 hr			6.00
ECTS Credit of the Course			6.00

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	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Contrib 1 very low ution Level:			2 low	,	3	Medi	ium	4 High			5 Very High					
LO: Learning Objectives PQ: Program Qualifications																
ÖK6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK5	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
ÖK4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
ÖK3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0