DIFFERANTIAL GEOMETRY II										
1	Course Title:	DIFFER	ANTIAL GEOMETRY II							
2	Course Code:	MAT3016								
3	Type of Course:	Compuls	sory							
4	Level of Course:	First Cycle								
5	Year of Study:	3								
6	Semester:	6								
7	ECTS Credits Allocated:	6.00								
8	Theoretical (hour/week):	2.00								
9	Practice (hour/week):	2.00								
10	Laboratory (hour/week):	0								
11	Prerequisites:	MAT 2013 Analytic Geometry I, MAT2014 Analytic Geometry II and MAT3015 Differential Geometry I								
12	Language:	Turkish								
13	Mode of Delivery:	Face to	face							
14	Course Coordinator:	Prof. Dr. Kadri Arslan								
15	Course Lecturers:									
16	Contact information of the Course Coordinator:	arslan@uludag.edu.tr (0 224) 294 17 75 Uludağ Üniversitesi, Fen-Edebiyat Fakültesi, Matematik Bölümü								
17	Website:									
18	Objective of the Course:	The purpose of this course, graduate level students to teach the basic concepts of differential geometry. The student was identified with the Euclidean space and after that it is introduced the surface theory and the concept of surface types in this space. In addition, the concept of the surface has been handled and the tangent and normal vector on the surfaces, forms, topological properties of surfaces and surface ransformations are introduced. Curvatures of surfaces with the help of the calculation aim to understanding the geometric meaning of the surfaces.								
19	Contribution of the Course to Professional Development:									
20	Learning Outcomes:									
		1	He/She defines the basic concepts of the patchs in Rn.							
		2	He/She defines the concepts of the surface in R3.							
		3	He/She makes a contact with regular patches and surfaces.							
		4	He/She defines a mappings on the surface.							
		5	He/She characterizes the topological properties of surfaces.							
		6	He/She classifies the surfaces with the help of Gaussian curvature of surfaces.							
		7	He/She formulated with the help of the mean curvature vector of the mean curvature of the surfaces.							
		8	He/She classifies curves on surfaces.							
		9	He/She characterizse the normal curvature of the surface with the help of the shape operator.							
		10	He/She defines and characterizes the types of surface							
21	Course Content:									

	Course Content:													
Week	Theoretical		Practice											
1	Patchs in the Rn, regular patch and t surface are defined.	he	Some examples of a patch are given											
2	Calculations of the patch and examp patches are handled.	les of	Some examples of a surface are given											
3	Tangent and normal vectors and differentiable functions are analyzed.		Some examples of a tangent and normal vectors are given											
4	Differential forms on surfaces are exp	orressed.	Some examples of a differentiable forms are given											
5	Mapping on the surfaces is given. De transformation, transformations of the star and top stars are examined.	erivative e lower	Some examples of a derivative transformation are given											
6	Focuses on issues of integration of for topological properties of surfaces.	orms and	Some examples of a transformations of the lower star and top stars are given											
7	Repeating courses and midterm examine	n	Some examples of surfa	aces are considered	ł									
8	Shape operator and the normal curva the surfaces are considered.	ature of	Some examples of shape operator are given											
9	Gaussian and mean curvatures of the surfaces are treated with the definition basic theorems about them.	e n and	Some examples of normal curvature are given											
10	computation techniques of Gaussian mean curvature are given.	and	Some examples of Gaussian and mean curvature are given											
11	Some special curves on surfaces are	•	Some examples of curves on surfaces are given											
Activit	es		Number	Duration (hour)	Total Work Load (hour)									
Theore	Levi-Civita derivative and geodesic li	nes on	Spme examples of Levi	Civita derivative ar	28.00 e given									
Practica	als/Labs		14	2.00	28.00									
Self ⁴ stu	On the intrinsic geometry of surfaces		Some examples of geor	hetry on surfaces a	40.00 ⁿ									
Homew	vorks		0	0.00	0.00									
Pr 8 7	LTextbooks, References and/or Other		O'Neill, B., Elementary I	ifferential Geomet	w.Academic									
Field S	tudies		0	0.00	0.00									
Midtern	n exams		Surfaces". CRC Press, 1	Raton Ann Ab	er.60ndon									
Others			2	40.00	80.00									
Final E	kams		Springer-Verlag London	Z.00 Great Brit	ain 2001. 2.00									
Total W	/ork Load				180.00									
Terahy	PARNING & CTIVITIES	NUMBE	WEIGHT		6.00									
ECTS (Credit of the Course				6.00									
Midtern	n Exam	1	40.00											
Quiz		0	0.00											
Home	work-project	0												
Final E	xam	1	60.00											
Total		2	100.00											
Contrib	ution of Term (Year) Learning Activitiess Grade	es to	40.00											
Contrib	ution of Final Exam to Success Grade	9	60.00											
Total			100.00											
Measur Course	rement and Evaluation Techniques Us	sed in the												
24	ECTS / WORK LOAD TABLE				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
LO: Learning Objectives PQ: Program Qualifications																
Contrib ution Level:	Contrib 1 very low ution Level:			2 low		3 Medi		um	4 High		5 Very High					