	DIFFERENTIAL	AND	INTEGRAL CALCULUS I							
1	Course Title:	DIFFER	RENTIAL AND INTEGRAL CALCULUS I							
2	Course Code:	MAT1089								
3	Type of Course:	Compuls	sory							
4	Level of Course:	First Cyc	le							
5	Year of Study:	1								
6	Semester:	1								
7	ECTS Credits Allocated:	6.00								
8	Theoretical (hour/week):	4.00								
9	Practice (hour/week):	2.00								
10	Laboratory (hour/week):	0								
11	Prerequisites:	Yok								
12	Language:	Turkish								
13	Mode of Delivery:	Face to f	Face to face							
14	Course Coordinator:	Prof. Dr. AHMET TEKCAN								
15	Course Lecturers:	Öğr.Gör.Dr.Betül GEZER								
16	Contact information of the Course Coordinator:	Uludağ Üniversitesi Fen-Edebiyat Fakültesi Matematik Bölümü 16059 Görükle Bursa-TÜRKİYE 0 224 294 17 51 tekcan@uludag.edu.tr								
17	Website:									
18	Objective of the Course:	The aim of the course is to make the students gain the some algebraic properties single valued functions including, limit, continuity, derivative, theorems on derivatives, applications of derivatives, graphics, indefinite integrals, reducing formulas, definite integrals, improper integrals, applications of integrals, sequences, series, matrices and determinants.								
19	Contribution of the Course to Professional Development:									
20	Learning Outcomes:									
		1	Learn the sets, numbers, relations and functions.							
		2	Learn the limit and continuity on single valued functions.							
		3	Learn the derivatives of some specific functions.							
		4	Learn the applications of derivatives, maximum-minimum problems on single valued functions.							
		5	Learn the increasing and decreasing of functions, convex and concave of functions.							
		6	Learn the draw the some specific functions.							
		7	Learn the indefinite integrals, Riemann sums.							
		8	Learn the calculate integrals with change of variables, partial integration, simple fractions and trigonometric change of variables.							
		9	Learn the applications of integrals, area, volume, length of arc. Sequence and series, power series and their radius and intervals of convergence.							
		10	Learn to matrices, determinants and linear equation systems, Gauss method, inverse matrix method.							
21	Course Content:									
	Course Content:									

Week	Theoretical		Practice								
1	Overview of basic concepts on lesson numbers, identities and equations	ns, sets,	Solutions in questions of the subjects of theoretical								
2	Relations, functions, and function typ	es	Sc	Solutions in questions of the subjects of theoretical							
3	Limits and continuity		Sc	Solutions in questions of the subjects of theoretical							
4	Derivates and derivates some specifi functions, geometric interpretation of derivative	c the	Solutions in questions of the subjects of theoretical								
5	Increasing-decreasing functions, con- curves, maximum and minimum prob one valued functions	cavity of lems of	Solutions in questions of the subjects of theoretical								
6	Indeterminate forms on limits and L'H rule	lospital	Solutions in questions of the subjects of theoretical								
7	Graphing functions with calculus		Solutions in questions of the subjects of theoretical								
8	Midterm Exam+ Revision of lesson										
9	Indefinite integrals, computing the integration with change of variables, partial integration computing the integrals with specific of variables, trigonometric change of variables	egrals ration, change	Solutions in questions of the subjects of theoretical								
10	Definite integrals, Riemann sums, the fundamental theorem of calculus	e	Sc	olutions in questions of	f the subjects of the	eoretical					
11	Approximate integration, improper int	egrals	Sc	olutions in questions of	f the subjects of the	eoretical					
12	Applications of definite integrals, area	a, A of	Solutions in questions of the subjects of theoretical								
Activit	ies			Number	Duration (hour)	Total Work Load (hour)					
Theore	Matrices determinants and linear equ		S	14 Jutions in questions of	4.00	56.00					
Practic	als/Labs			14	2.00	28.00					
Self stu	idy and preperation		1[1]	14 10 Bizim A Tekcan	5.00 Ve B. Gezer, Gene	70.00 Matematik					
Homew	vorks		(0	0.00	0.00					
Project	8		[2]	bF. Akbulut ve A. Çalı Problemler Derlemes	kan Matematik Ar i Izmir 1987	alizoAlıştırma					
Field S	tudies		(0	0.00	0.00					
Midtern	n exams		[4] G	[4] ₁ G. Thomas and R. Finney ₀ Calculus and Analyti Geometry Part L Addison-Wesley Pub 1994							
Others				0	0.00	0.00					
Fi 23 E	Assesment			1	14.00	14.00					
Total W	Vork Load	D				180.00					
Total w Midtern	rork load/ 30 hr n Exam	1	4	0.00		6.00					
ECTS (Credit of the Course	•				6.00					
Home	work-project	0	0.00								
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)	60.00								
Total			100.00								
Measu Course	rement and Evaluation Techniques Us	sed in the									

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	5	5	3	5	5	4	4	3	4	4	3	5	0	0	0	0
ÖK2	5	5	4	5	5	2	4	4	3	4	4	5	0	0	0	0
ÖK3	5	5	3	5	5	3	4	4	3	4	4	5	0	0	0	0
ÖK4	5	5	4	5	5	2	4	4	3	4	4	5	0	0	0	0
ÖK5	5	5	3	5	5	4	4	3	4	4	3	5	0	0	0	0
ÖK6	5	5	4	5	5	2	4	4	3	4	4	5	0	0	0	0
ÖK7	5	5	3	5	5	3	4	4	3	4	4	5	0	0	0	0
ÖK8	5	5	4	5	5	2	4	4	3	4	4	5	0	0	0	0
ÖK9	5	5	3	5	5	3	4	4	3	4	4	5	0	0	0	0
ÖK10	5	5	4	5	5	2	4	4	3	4	4	5	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contrib ution Level:	Contrib 1 very low ution Level:		2 low			3 Medium			4 High			5 Very High				