ANALYSIS I										
1	Course Title:	ANALYSIS I								
2	Course Code:	MAT1007								
3	Type of Course:	Compulsory								
4	Level of Course:	First Cycle								
5	Year of Study:	1								
6	Semester:	1								
7	ECTS Credits Allocated:	10.00								
8	Theoretical (hour/week):	4.00								
9	Practice (hour/week):	2.00								
10	Laboratory (hour/week):	0								
11	Prerequisites:	None								
12	Language:	Turkish								
13	Mode of Delivery:	Face to face								
14	Course Coordinator:	Dr. Ögr. Üyesi BAHTİYAR BAYRAKTAR								
15	Course Lecturers:									
16	Contact information of the Course Coordinator:	E-mail: bbayraktar@uludag.edu.tr, İş Tel: +90(224) 294 22 98. Adres: UÜ, Eğitim Fakültesi, İlköğretim Bölümü, Matematik Eğitimi Anabilim Dalı, 16059 Görükle / BURSA								
17	Website:									
18	Objective of the Course:	The purpose of the course is to be able to examine development of limit, differential and integral calculus of theoretical structure in univariate functions and to gain skills in its interpreting.								
19	Contribution of the Course to Professional Development:									
20	Learning Outcomes:									
		1	Ability to define concept of progressions, concept of approach, concept of convergent and divergent sequences, concept of zillion and infinitesimal							
		2	Ability to explain limit, continuity and differentiation concepts of univariate functions.							
		3	Ability to explain limit, continuity, discontinuity and differentiation concepts of univariate functions.							
		4	Ability to do examination of limit calculations and determination of continuity of function							
		5	According to elementary functions, their reverses, definitions of closed and parametric function derivatives ability to calculate with formulas.							
		6	Ability to solve derivative tasks(problem solving, analysis and graph drawing of function)							
		7	Ability to interpret concept of differential of a function. Ability to use concept of differential in tasks related with approach calculations.							
		8	Ability to use rule of L'Hospital in limit calculations. Ability to make Taylor extension of functions.							
		9								
		10								
21	Course Content:									

	Course Content:											
Week	Theoretical											
1	Progressions. Basic definitions and examples. Monotone progressions. Examples. Convergent, divergent progressions a geometric meanings. Limited sequen Zillion and Infinitesimal progressions. theorems about sequences and prac- tasks.	and their ces. General tice	Determination of characters of progressions. Examination of convergence of sequences. Practice of theorems.									
2	Limit conception of univariate function its practice. Perfect limits. Limit calcu techniques.	ns and lation	Limit calculation									
3	Types of continuity and discontinuity Properties of continuous functions	-	Examination of continuity of functions.									
4	Concept of derivative in univariate fur Geometrical and physical interpretati derivative. Rules of derivation. Featu derivation.	nctions. on of res of	Derivative calculations according to the definition of derivative. Derivative calculations.									
5	Derivate of functions given in the forr closed and parametric ones. Derivati inverse and compound functions.	n of ve of	Derivative calculations.									
6	Differential of function and its practice	э.	Di	ifferential of the function	on and its practice							
7	Midterm exam		Midterm exam									
8	High-ordered derivatives. Finite theor	rem of	Practice of Taylor's formula.									
Activit	es			Number	Duration (hour)	Total Work Load (hour)						
Theore	Factice for derivative:		E	Atreme points of function	4.00 m and absolute ex	rema points.						
Practica	als/Labs			14	2.00	28.00						
Self stu	Beading points in symptotes. Extreme	e points		13	8.00	104.00						
Homew	vorks			0	0.00	0.00						
Project	Practice for derivative:		Е	o xtreme points of function	0.00 on and absolute ex	0.00 rema points.						
Field S	tudies			0	0.00	0.00						
Midtern	Bending points Asymptotes Extreme	ve. e points		1	10.00	10.00						
Others		pointo		0	0.00	0.00						
Final E	kams			1	12.00	12.00						
Total Work Load				avimum and minimum	problems	210.00						
To ta l w	oxkao,æd∉ ô0fbnction and graphic draw	ing.	A	nalyse of function and	graphic drawing	7.00						
ECTS (Credit of the Course		-	•		10.00						
14	Examples	Ahaiyse or runction and graphic drawing										
22	Textbooks, References and/or Other Materials:		 Prof. Dr. Ahmet A. KARADENIZ High Mathematics. Volume 1, 2nd, 4th Edition, 1985. Professor. Mustafa BAYRAKTAR Introduction analysis I, II. 2nd Edition, 2008. Prof. Dr. Mustafa BALCI, Analysis 1.2. 7.Edition, 2008. Assoc. Dr. Ahmet TEKCAN, Advanced Analysis. DORA 2010. 									
23	Assesment											
TERM L	EARNING ACTIVITIES	NUMBE R	WEIGHT									
Midterm Exam 1				40.00								
Quiz 0				0.00								

Home work-project					0)	0.0	0.00									
Final Exam 1							60.	60.00									
Total 2								10	100.00								
Contribution of Term (Year) Learning Activities to Success Grade							40.	40.00									
Contribution of Final Exam to Success Grade							60.	60.00									
Total							10	100.00									
Measurement and Evaluation Techniques Used in Course						d in th	ne	9									
24 ECTS / WORK LOAD TABLE																	
25	5 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	0	5	3	5	5	4	2	0	0	0	0	0	0	0	0	
ÖK2	5	0	5	4	5	5	5	2	0	0	0	0	0	0	0	0	
ÖK3	5	0	5	3	5	3	4	2	0	0	0	0	0	0	0	0	
ÖK4	5	0	5	3	5	3	5	2	0	0	0	0	0	0	0	0	
ÖK5	5	0	5	4	5	5	5	2	0	0	0	0	0	0	0	0	
ÖK6	5	0	5	4	5	5	4	2	0	0	0	0	0	0	0	0	
ÖK7	5	0	5	4	5	5	3	2	0	0	0	0	0	0	0	0	
ÖK8	5	0	5	4	5	4	3	2	0	0	0	0	0	0	0	0	
LO: Learning Objectives PQ: Program Qualifications																	
Contrib 1 very lo ution Level:		low		2 low 3 M			Medi	edium 4 High			5 Very High						