		SET -	THEORY						
1	Course Title:	SET THE	EORY						
2	Course Code:	MAT202	0						
3	Type of Course:	Optional							
4	Level of Course:	First Cyc	le						
5	Year of Study:	2							
6	Semester:	4							
7	ECTS Credits Allocated:	4.00							
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	ace						
14	Course Coordinator:	Prof. Dr.	BASRİ ÇELİK						
15	Course Lecturers:								
16	Contact information of the Course Coordinator:	basri@ul 0224.294	ludag.edu.tr 41762						
17	Website:								
18	Objective of the Course:	Learns to essentials of set theory and establish the set of natural numbers and other number sets as a mathematical structure.							
19	Contribution of the Course to Professional Development:								
20	Learning Outcomes:								
		1	Knows the concept of set.						
		2	Calculates the set operations.						
		3	Knows the cardinals of finite and infinite sets.						
		4	Knows the concept of ordered sets and equivalent ordered sets.						
		5	Can construct the set of Natural numbers with using Peano axioms.						
		6	Can construct the set of Natural numbers with using Cardinal numbers.						
		7	Knows how to define operations in natural numbers.						
		8	Can construct the set of integers.						
		9	Can construct the set of rational numbers.						
		10	Improves the ability of abstract thinking.						
21	Course Content:								
		Co	urse Content:						
Week	Theoretical		Practice						
1	Description of course	d. d.							
2	Cardinal numbers and operations wi	th them.							
3	with cardinal numbers.	mbers							
4	The proof of Induction Theorem and applications.	its							

5	Function	Functions.																		
6	Combi	Combinatoric calculations.																		
7	Constr with a	uct tion	ion of ns of	f the s Peand	et of I o.	Natural	numt	oers												
8	The dir used ir numbe	fer h th rs,	ences e cor and t	s betw nstruct their re	veen t tion of esults	he two <sup>:</sup> the se	metho t of N	ods atural												
9	Midter	n a	and fe	edbad	ck															
10	Constr Opera	uct ion	ion of Is with	f the s h integ	et of i gers.	ntegers	S.													
11	Constr	uct	ion of	f the s	et of r	rational	Inumb	bers.												
12	Opera	ion	is with	h ratio	nal nu	umbers	5.													
13	Cardin	alit	y of ir	nfinite	sets.															
14	Examp	les	5.																	
22	Textbooks, References and/or Other Materials:							1)/ Pu 2)(	1)Abstract Algebra, Roger Godement, Hermann Publishers, 1968, Paris. 2)Soyut Matematik, Sait Akkaş, H. Hilmi Hacısalihoğlu,											
										Zühtü Ozel, Arif Sabuncuoğlu, gazi üniversitesi Yayın No:43, 1984, Ankara. 3)Sezgisel Kümeler Kuramı, Ali Nesin, Nesin Yayıncılık,2. Baskı, 2008, İstanbul.										
Activites								ľ	Numb	er		Dura	ition (	Total Work Load (hour)						
Theore	neoretical									14			3.00			42.00				
Practic	racticals/Labs									)			0.00			0.00				
Self stu	All study and preperation									14			3.00			42.00				
Homew	omeworks									0					0.00					
Project	verts									0.00			0.00		0.00					
Field S	eld Studies									)			0.00			0.00				
Midterr	Vidterm exams								60						4.00					
Others	Others								ŕ	14			2.00			28.00				
Final E	nal Exams									1			4.00		4.00					
Total W	otal Work Load													120.00						
Total w									-							4.00				
ECTS (	TS Credit of the Course									4.00										
25				CON	TRIE	BUTIO	N OI	E LE/	ARN QUA	ling ( Lific	OUTC ATIO	COMES NS	S TO I	PROC	GRAM	ME				
	PC	21	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ1 0	PQ11	PQ12	PQ1 3	PQ14	PQ15	PQ16			
ÖK1	2	{	5	1	4	5	1	1	3	3	2	0	0	0	0	0	0			
ÖK2	3	4	4	1	2	4	1	2	2	2	1	0	0	0	0	0	0			
ÖK3	1	4	4	1	3	4	1	2	3	1	1	0	0	0	0	0	0			
ÖK4	2	4	4	1	2	4	1	2	3	2	1	0	0	0	0	0	0			

ÖK5	2	5	1	2	5	1	1	2	2	1	0	0	0	0	0	0
ÖK6	1	4	1	3	4	1	2	3	0	0	0	0	0	0	0	0
ÖK7	3	5	1	3	5	1	3	2	2	2	0	0	0	0	0	0
ÖK8	1	3	1	2	4	1	3	3	2	1	0	0	0	0	0	0
ÖK9	2	4	1	4	4	1	2	2	3	1	0	0	0	0	0	0
ÖK10	1	5	1	3	5	1	1	2	2	1	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				