	ABSTR	ACT I	MATHEMATICS I						
1	Course Title:	ABSTRA	CT MATHEMATICS I						
2	Course Code:	MAT050	5						
3	Type of Course:	Optional							
4	Level of Course:	First Cyc	le						
5	Year of Study:	2							
6	Semester:	3							
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:	Prof.Dr.	Atilla AKPINAR						
16	Contact information of the Course Coordinator:	basri@ul 0224.294	ludag.edu.tr 41762						
17	Website:								
18	Objective of the Course:	use math	duce the basic concepts of mathematics on sets. To able to hematics' language. To establish the relationship between language and mathematical language.						
19	Contribution of the Course to Professional Development:		ble to practice the professional applications of mathematical metric concepts.						
20	Learning Outcomes:								
		1	Learns the concept of proposition.						
		2	Distinguish between propositional and non-propositional statements.						
		3	Learns the concept of set.						
		4	Knows sets display methods.						
		5	Can construct operations between sets.						
		6	Knows and uses the concept of function.						
		7							
		8							
		9							
	1	10							
21	Course Content:								
107	T	Со	purse Content:						
	Theoretical		Practice						
1	Description of course.								
2	Mathematical propositions.								
3	Methods of proof. Showing a truth of propositions.								
4	Application of propositions to electric	circuits.							
5	Open propositions. Introduction to the concept of set.	9							

6	The logic of quantifiers.									
7	Subset and universal set.									
8	Union, intersection, complement and difference sets and their properties. Membership table, family of sets an operations.									
9	Midterm and feedback									
10	Ordered tuples, Cartesian product, quand their properties.	graphics								
11	Relation, graphic and the inverse of relation.	а								
12	Composition of graphics and relation functional relations and functions.	ns,								
13	One to one and onto functions. Invefunction. Permutations.	rse of a								
14	Image properties under functions ar inverse. Numeric properties of relatifunctions.									
22	Textbooks, References and/or Othe Materials:	r	1)Soyut Matematik I, Basri Çelik, Dora Yayınevi, 2010, Bursa. 2)Abstract Algebra, Roger Godement, Hermann Publishers, 1968, Paris. 3)Soyut Matematik, Sait Akkaş, H. Hilmi Hacısalihoğlu,							
Activit	tes		Number Duration (hour) Total Wo							
TERM	EXTENSING ACTIVITIES	NUMBE	WEIGHT		3.00	42.00				
Practic	als/Labs	16	0		0.00	0.00				
Self stu	udy and preperation	0	0.00		2.00	28.00				
Homev			0		0.00	0.00				
Project Final F	S S	1	60.00		0.00	0.00				
Field S			0		0.00	0.00				
Midterr	The exams	ing to	40.00		14.00	14.00				
Others		шет	14		1.00	14.00				
Einal E	xams outlon of Final Exam to Success Grad	de	60 ¹ 00		22.00 22.00					
	Vork Load		133.33			134.00				
Total w	vork load/ 30 hr	L . J	The evet			4.00				
ECTS	Credit of the Course	icad in tha	L ho ovet	om ot rolotivo o	Valuation is applied	4.00				
24	ECTS / WORK LOAD TABLE									
25 CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS										

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	0	0	0	0	5	0	4	0	0	0	0	0	0	0	0	0
ÖK2	0	0	0	0	5	0	4	0	0	0	0	0	0	0	0	0
ÖK3	0	0	0	0	5	0	4	0	0	0	0	0	0	0	0	0
ÖK4	0	0	0	0	5	0	4	0	0	0	0	0	0	0	0	0

ÖK5	0	0	0	0	5	0	4	0	0	0	0	0	0	0	0	0
ÖK6 0 0 0 5 0 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0											0					
Contrib 1 very low 2 low ution Level:						3 Medium 4 High					5 Very High					