

# BASIC MATHEMATICS IN PRIMARY SCHOOL

1	Course Title:	BASIC MATHEMATICS IN PRIMARY SCHOOL
2	Course Code:	SIN1001
3	Type of Course:	Compulsory
4	Level of Course:	First Cycle
5	Year of Study:	1
6	Semester:	1
7	ECTS Credits Allocated:	5.00
8	Theoretical (hour/week):	3.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	0
11	Prerequisites:	
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Doç. Dr. YELİZ YAZGAN
15	Course Lecturers:	Doç.Dr.Yeliz YAZGAN
16	Contact information of the Course Coordinator:	Adres: Bursa Uludağ Üniversitesi Eğitim Fakültesi, Matematik ve Fen Bilimleri Eğitimi Bölümü, Matematik Eğitimi Anabilim Dalı, 16059 Görükle / Bursa E-Mail:dsmemnun@uludag.edu.tr
17	Website:	
18	Objective of the Course:	Number systems and hierarchical model, the four operations closed properties of number systems, mathematical modeling, problem solving and setting with four operations, writing a base 10 number in other bases and converting a number written in other bases to base 10, base 10 four operations in bases except four operations, divisibility rules for 2, 3, 4, 5 and 10 with proofs, least common multiple and greatest common divisor, four operations with fractions and fractions, fraction and ratio relation, writing numbers in decimal fraction and four operations, patterns , basic geometric shapes, basic space geometry - geometric objects and expansions, the concept of measure and basic measurement units and the relationship of these subjects with the purpose, principle and primary school mathematics curriculum of mathematics education.
19	Contribution of the Course to Professional Development:	It contributes to the teacher's math literacy.
20	Learning Outcomes:	
	1	Comprehending the historical development of mathematics with its subject, principles, basic concepts and its place in other sciences
	2	Understanding the aims of teaching mathematics
	3	Comprehending general information about mathematics subjects in the primary school curriculum, their characteristics and their equivalents in daily life and their usage areas
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21	Course Content:			
	Course Content:			
Week	Theoretical	Practice		
1	Definition of mathematics The nature of mathematics Purpose and importance of mathematics			
2	Mathematics and life Purpose and importance of mathematics in primary school Basic principles of mathematics Mathematics and curriculum Mathematics and other sciences			
3	The concept of numbers The history of numbers Natural numbers Number systems Number systems and their hierarchical model			
4	Setting up a number system and operations Closure properties of number systems according to four operations			
5	Four operations in bases other than base 10 Basis arithmetic and digit value Divisibility rules for 2, 3, 4, 5 and 10 with integers and Divisibility Proofs Divisibility rules for different numbers such as 7, 11			
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7	Definition of pattern Importance of pattern			
Activites		Number	Duration (hour)	Total Work Load (hour)
Theoretical modeling What is problem and problem solving		14	3.00	42.00
Practicals/Labs		0	0.00	0.00
Self study Problem and problem solving Problem solving stages Problem setting and solving with four		14	2.00	28.00
Homeworks		14	2.00	28.00
Projects		0	0.00	0.00
Field Studies		0	0.00	0.00
Midterm Exams Operations in fractions Writing numbers in decimal fractions Four operations in decimal		1	20.00	20.00
Others		0	0.00	0.00
Final Exams Geometric concepts Basic space geometry		1	32.00	32.00
Total Work Load				170.00
Total work load/ 30 hr				5.00
ECTS Credit of the Course				5.00
14	The concept of measure basic units of measure The importance of estimating in measurement			
22	Textbooks, References and/or Other Materials:			
23	Assesment			
TERM LEARNING ACTIVITIES		NUMBE R	WEIGHT	
Midterm Exam		1	40.00	
Quiz		0	0.00	
Home work-project		0	0.00	
Final Exam		1	60.00	
Total		2	100.00	

Contribution of Term (Year) Learning Activities to Success Grade	40.00
Contribution of Final Exam to Success Grade	60.00
Total	100.00
Measurement and Evaluation Techniques Used in the Course	Multiple choice tests
<b>24</b>	<b>ECTS / WORK LOAD TABLE</b>

<b>25</b>	<b>CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS</b>															
	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1	1	3	2	2	1	1	1	2	3	4	2	2	3	3	2	1
ÖK2	3	2	3	4	1	2	3	2	4	4	2	3	1	2	1	4
ÖK3	1	1	2	3	4	4	5	1	1	2	3	3	4	4	5	5
<b>LO: Learning Objectives    PQ: Program Qualifications</b>																
<b>Contribution Level:</b>	<b>1 very low</b>		<b>2 low</b>		<b>3 Medium</b>		<b>4 High</b>		<b>5 Very High</b>							