

MATHEMATICS

1	Course Title:	MATHEMATICS
2	Course Code:	MAT1083
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:	Prof. Dr. İSMAİL NACİ CANGÜL
15	Course Lecturers:	Matematik bölümünün tüm öğretim üyesi ve öğretim görevlileri
16	Contact information of the Course Coordinator:	E-posta: cangul@uludag.edu.tr Telefon: +90 224 2941756 Adres: Uludağ Üniversitesi Fen-Edebiyat Fakültesi Matematik Bölümü 16059 Görükle-Bursa-TÜRKİYE
17	Website:	
18	Objective of the Course:	
19	Contribution of the Course to Professional Development:	
20	Learning Outcomes:	
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21	Course Content:	
	Course Content:	
Week	Theoretical	Practice
1	functions, special functions, trigonometric functions	
2	inverse trigonometric functions, exponential and logarithmic functions	
3	equations and inequalities	
4	limit of functions, limit theorems, limits of polynomials, special functions, exponential, logarithmic, trigonometric and inverse trigonometric functions	

5	indeterminates and l'hospital rule	
6	continuity of functions, types of discontinuity and removal of discontinuity	
7	definition of derivative, fundamental derivative theorems, geometric meaning of derivative, tangent and normal equations	
8	derivatives of sum, product and quotients, powers, chain rule	
9	implicit derivative, derivative of the inverse function, derivatives of exponential and logarithmic functions	
10	derivatives of trigonometric functions, derivatives of inverse trigonometric functions	
11	Physical meaning of derivative and its applications	
12	Rolle theorem, intermediate value theorem, optimization problems	
13	differential and linearization, Newton method	
14	drawing curves of rational functions by means of derivative	

22	Textbooks, References and/or Other Materials:	
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23	Assesment	
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TERM LEARNING ACTIVITIES		NUMBER	WEIGHT		
Activites			Number	Duration (hour)	Total Work Load (hour)
Home work-project					
Theoretical					
Practicals/Labs					
Self study and preperation					
Homeworks					
Projects					
Contribution of Final Exam to Success Grade					
Field Studies					
Midterm exams					
Others					
Final Exams					

24 ECTS / WORK LOAD TABLE					
Total Work Load					
Total work load/ 30 hr					
ECTS Credit of the Course					5.00

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