CALCULUS I

1	Course Title:	CALCULUS I	
2	Course Code:	MAT1071E	
3	Type of Course:	Compulsory	
4	Level of Course:	First Cycle	
5	Year of Study:	1	
6	Semester:	1	
7	ECTS Credits Allocated:	6.00	
8	Theoretical (hour/week):	3.00	
9	Practice (hour/week):	2.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:	None	
12	Language:	English	
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:	is to give sufficient mathematics knowledge to solve engineering problems to students and also to improve the ability of finding solution to problems and analytical thinking.	
19	Contribution of the Course to Professional Development:		
20	Learning Outcomes:		
		1	Calculates limit of functions
		2	Determines whether a function is continuous or not
		3	Knows the concept of derivative
		4	Learns the rules of calculating derivative
		5	Calculates derivative of functions
		6	Sketches graphs of functions
		7	Knows basic definitons and theorems of mathematics
		8	
		9	
		10	
21	Course Content:		

Course Content:

Week	Theoretical	Practice
1	Numbers,Functions.	Solving problems

2	Cartesian Plane, circle	Solving problems
3	Ellipse, parabola, hyperbola	Solving problems
4	The definition of limit and rules of limit, continuity	Solving problems
5	The definition of derivative and derivation rules, the geometrical application of derivative, implicit derivative.	Solving problems
6	Derivative of some special functions	Solving problems
7	Change problems.	Solving problems
8	Midterm exam and evaluation of midterm exam, repeat of previous subjects	Solving problems
9	Increasing and decreasing functions.	Solving problems
10	The main value Theorem and its applications	Solving problems
11	Convexity, concavity, Curve sketching.	Solving problems
12	The maximum and minimum problems, polar coordinates.	Solving problems
13	Inverse functions, Derivative of inverse functions.	Solving problems
14	The exponential and logarithm functions and their applications.	Solving problems

Publishing Company -2005.
3) Temel Matematik, Basri Çelik, İsmail Naci Cangül, Nisa
4) Genel Matematik, Mustafa Balcı, Balcı yayınları, 2003.
5) Genel Matematik (Diferensiyel ve İntegral Hesap),
2011

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	3.00	42.00
Practicals/Labs	14	2.00	28.00
Self study and preperation	14	2.00	28.00
Homeworks	0	0.00	0.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	13.00	13.00
Others	14	4.00	56.00
Final Exams	1	13.00	13.00
Total Work Load			180.00
Total work load/ 30 hr	60.00		6.00
ECTS Credit of the Course			6.00

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	

22	Assesment
TERM LEARNING ACTIVITIES	**NUMBER** / **WEIGHT**
Quiz	0 / 0.00
Final Exam	1 / 60.00

24	**ECTS / WORK LOAD TABLE**

25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
	PQ1	**PQ2**	**PQ3**	**PQ4**	**PQ5**	**PQ6**	**PQ7**	**PQ8**	**PQ9**	**PQ10**	**PQ11**	**PQ12**	**PQ13**	**PQ14**	**PQ15**	**PQ16**
ÖK1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	**1 very low**		**2 low**		**3 Medium**		**4 High**		**5 Very High**							