

## GENERAL MATHEMATIC II

1	Course Title:	GENERAL MATHEMATIC II	
2	Course Code:	MAT1098	
3	Type of Course:	Compulsory	
4	Level of Course:	First Cycle	
5	Year of Study:	1	
6	Semester:	2	
7	ECTS Credits Allocated:	5.00	
8	Theoretical (hour/week):	4.00	
9	Practice (hour/week):	0.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:	No	
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: Bursa 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 chemical 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:	It supplies the fundamental mathematics knowledge necessary for chemists.	
20	Learning Outcomes:		
		1	Knows the concept of integral
		2	Learns the rules of calculating integral
		3	Calculates integral of functions
		4	Learns the applications of integral
		5	Knows the concept of serie
		6	Determines whether a serie is convergent or not
		7	Knows power series.
		8	
		9	
		10	
21	Course Content:		
		<b>Course Content:</b>	
Week	Theoretical	Practice	
1	The indefinite integral		
2	Calculating of indefinite integrals		
3	Change of variables, partial integration		
4	Trigonometric change of variables		

5	Binomial integrals	
6	Riemann lower and upper sums and integrals	
7	Definite integral	
8	Midterm exam and evaluation of midterm exam	
9	Applications of definite integration	
10	Area, volume, area and volume on polar coordinates	
11	Surface area	
12	Sequence and series, test of convenience of series	
13	Power series and its convergence ration and convergence interval	
14	Taylor series expansion	

22	Textbooks, References and/or Other Materials:	[1] Genel Matematik, Mustafa Balcı, Balcı Yayınları, 2003. [2] Genel Matematik, Diferensiyel ve İntegral Hesap, Osman Bizim, Ahmet Tekcan, Betül Gezer. Dora Yayınları, 2011 [3] A First Course in Calculus, Serge Lang, World Student Series Third Edition, Addison-Wesley Publishing Company. [4] Thomas Calculus, 11. Edition, Pearson Addison-Wesley Publishing Company, 2005
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Activites		Number	Duration (hour)	Total Work Load (hour)
Theoretical				
Midterm Exam	1	40.00	2.00	28.00
Practicals/Labs		14	2.00	28.00
Self study and preparation	0	0.00	5.00	40.00
Homeworks		2	7.00	14.00
Projects	2	10.00	10.00	10.00
Field Studies		0	0.00	0.00
Success Grade Midterm exams		1	15.00	15.00
Others		0	0.00	0.00
Total Exams		100.00	15.00	15.00
Total Work Load				150.00
Course				5.00
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
ÖK1	0	3	0	0	0	3	4	0	0	4	0	4	0	0	0	0
ÖK2	0	3	0	0	0	3	4	0	0	4	0	4	0	0	0	0
ÖK3	0	3	0	0	0	3	4	0	0	4	0	4	0	0	0	0
ÖK4	0	3	0	0	0	3	4	0	0	4	0	4	0	0	0	0

ÖK5	0	3	0	0	0	3	4	0	0	4	0	4	0	0	0	0
ÖK6	0	3	0	0	0	3	4	0	0	4	0	4	0	0	0	0
ÖK7	0	3	0	0	0	3	4	0	0	4	0	4	0	0	0	0
LO: Learning Objectives    PQ: Program Qualifications																
Contribution Level:	1 very low		2 low		3 Medium		4 High		5 Very High							