

## BACIS MATHEMATICS II

1	Course Title:	BACIS MATHEMATICS II
2	Course Code:	MAT1076
3	Type of Course:	Compulsory
4	Level of Course:	First Cycle
5	Year of Study:	1
6	Semester:	2
7	ECTS Credits Allocated:	3.00
8	Theoretical (hour/week):	2.00
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. SİBEL KOPARAL
15	Course Lecturers:	Matematik bölümünün tüm öğretim üyesi ve öğretim görevlileri
16	Contact information of the Course Coordinator:	E-posta: sibelkoparal@uludag.edu.tr Telefon: +90 224 2942846 Adres: Bursa Uludağ Üniversitesi Fen-Edebiyat Fakültesi Matematik Bölümü 16059 Görükle-Bursa-TÜRKİYE
17	Website:	
18	Objective of the Course:	is to gain knowledge of basic mathematics to students, to improve the ability of finding solution to problems and analytical thinking.
19	Contribution of the Course to Professional Development:	To be able to look at problems from multiple angles by having basic knowledge.
20	Learning Outcomes:	
	1	Knows the concept of derivative
	2	Learns the rules of calculating derivative
	3	Calculates derivative of functions
	4	Sketches graphs of functions
	5	Knows the concept of indefinite integral
	6	Applies the methods of calculating integral
	7	Calculates area, volume and length of curve by definite integral.
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	10	
21	Course Content:	
	<b>Course Content:</b>	
Week	Theoretical	Practice
1	The definition of derivative, geometric meaning of derivative	
2	The rules of calculating derivative	

<b>3</b>	The chain rule, tangent and normal line equations	
<b>4</b>	The derivative of some special functions	
<b>5</b>	Increasing and decreasing functions, extremums	
<b>6</b>	Maximum and minimum problems	
<b>7</b>	Convexity and concavity of curves	
<b>8</b>	Asymptotes, the types of asymptote	
<b>9</b>	Midterm exam and evaluation of midterm exam, repeat of previous subjects	
<b>10</b>	Sketch the graph of functions	
<b>11</b>	Basic properties of indefinite integral	
<b>12</b>	The methods of calculating indefinite integral	
<b>13</b>	Definite integral and area	
<b>14</b>	Volume and length of curve	

22	Textbooks, References and/or Other Materials:	<p>1) Temel Matematik, Basri Çelik, İsmail Naci Cangül, Nisa Çelik, Osman Bizim, Metin Öztürk; Dora Yayınları, 2010.</p> <p>2) Matematik Cilt I, Çeviri Editörü Prof Dr İsmail Naci CANGÜL, Nobel Yayınevi 2013.</p> <p>3) Genel Matematik, Prof Dr Ali Dönmez, Beta yayınları 2000</p>
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Activites		Number	Duration (hour)	Total Work Load (hour)
Theoretical		14		
Midterm Exam	1	40.00	2.00	28.00
Practicals/Labs		0	0.00	0.00
Self study and preperation		14		
Home work project	0	0.00	2.00	28.00
Homeworks		0	0.00	0.00
Projects		0		
Total	2	100.00	0.00	0.00
Field Studies		0	0.00	0.00
Midterm Exams		1	10.00	10.00
Others		14	1.00	14.00
Final Exams		1	10.00	10.00
Total		100.00		
Total Work Load				90.00
Total work load/ 30 hr				3.00
ECTS Credit of the Course				3.00

## 24 | ECTS / WORK LOAD TABLE

[illegible]

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