

MATHEMATICS II

1	Course Title:	MATHEMATICS II
2	Course Code:	MAT1084
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):	3.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	0
11	Prerequisites:	None
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Dr. Öğr. Üyesi AYŞUN YURTTAŞ GÜNEŞ
15	Course Lecturers:	Matematik Bölümü Öğretim Üyeleri ve Öğretim Elemanları
16	Contact information of the Course Coordinator:	E-posta: ayurttas@uludag.edu.tr Telefon: +90 224 2941769 Adres: Uludağ Üniversitesi Fen-Edebiyat Fakültesi Matematik Bölümü 16059 Görükle-Bursa-TÜRKİYE
17	Website:	
18	Objective of the Course:	To teach indefinite integral, methods of indefinite integral, Properties of the integral, Theorems related with the Riemann integral, Applications of the Riemann integral (Calculation of Area, length of arc, volume and surface area), Generalized integrals and their properties, convergence of real number sequences and series.
19	Contribution of the Course to Professional Development:	It supplies the mathematical knowledge necessary for the students. Students are able to interpret and regulate data systematically.
20	Learning Outcomes:	
	1	He/ she recognizes the concept of the indefinite integral;
	2	He/ she applies the integral methods;
	3	He/ she calculates the definite integral of partial functions;
	4	He/ she calculates derivative of an integral;
	5	He/ she recognizes the definite integral;
	6	He/ she calculates area, length of arc, volume and surface area;
	7	He/ she recognizes the generalized integrals;
	8	He/ she interprets the properties of the generalized integrals;
	9	He/ she determines convergences of real number sequences;
	10	He/ she determines convergences of real number series;
21	Course Content:	
	Course Content:	
Week	Theoretical	Practice
1	Indefinite integrals, methods of integrals, changing variables	

2	Some special changing variables	
3	Partial integration	
4	Seperation of the simple fractions, integral of trigonometric functions	
5	Integral of Irrational algebraic functions, Binom integrals	
6	Definite integral	
7	Calculation of area, Calculation of volume	
8	Calculation of length of arc, Computation of surface area	
9	Mid-term exam evaluation	
10	The convergence criterions of generalized integrals	
11	Real number sequences	
12	Convergence of real number sequences	
13	Convergence of real number series	
14	Convergence tests for positive series.	

22	Textbooks, References and/or Other Materials:	Calculus, İsmail Naci CANGÜL (Editör), Nobel Yayınları, 2012 Genel Matematik 1, Mustafa BALCI, Balcı Yayınları, 2008
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23	Assesment	
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TERM LEARNING ACTIVITIES		NUMBE	WEIGHT		
Activites			Number	Duration (hour)	Total Work Load (hour)
Homework-project		0	0	3.00	42.00
Practicals/Labs			0	0.00	0.00
Self study and preperation		2	1	5.00	70.00
Homeworks			0	0.00	0.00
Success Grade Projects			0	0.00	0.00
Field Studies			0	0.00	0.00
Total			1	15.00	15.00
Midterm exams			0	0.00	0.00
Others			1	25.00	25.00
Final Exams			1	25.00	25.00
24. ECTS /WORK LOAD TABLE					
Total Work Load					167.00
Total work load/ 30 hr					5.07
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	1	0	2	4	2	0	4	0	4	0	0	0	0	0	0
ÖK2	0	1	0	2	4	2	0	4	0	4	0	0	0	0	0	0
ÖK3	0	1	0	2	4	2	0	4	0	4	0	0	0	0	0	0
ÖK4	0	1	0	2	4	2	0	4	0	4	0	0	0	0	0	0

ÖK5	0	1	0	2	4	2	0	4	0	4	0	0	0	0	0	0
ÖK6	0	1	0	2	4	2	0	4	0	4	0	0	0	0	0	0
ÖK7	0	1	0	2	4	2	0	4	0	4	0	0	0	0	0	0
ÖK8	0	1	0	2	4	2	0	4	0	4	0	0	0	0	0	0
ÖK9	0	1	0	2	4	2	0	4	0	4	0	0	0	0	0	0
ÖK10	0	1	0	2	4	2	0	4	0	4	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			