ANALYSIS II

1	Course Title:	ANALYSIS II
2	Course Code:	MAT1002
3	Type of Course:	Compulsory
4	Level of Course:	First Cycle
5	Year of Study:	1
6	Semester:	2
7	ECTS Credits Allocated:	8.00
8	Theoretical (hour/week):	4.00
9	Practice (hour/week):	2.00
10	Laboratory (hour/week):	0
11	Prerequisites:	None
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Prof. Dr. İSMAİL NACİ CANGÜL
15	Course Lecturers:	Prof. Dr. Sibel YALÇIN TOKGÖZ, Prof. Dr. Osman BİZİM, Doç. Dr. Ahmet TEKCAN, Yrd. Doç. Dr. Musa DEMİRCİ, Yrd. Doç. Dr. Hacer ÖZDEN
16	Contact information of the Course Coordinator:	cangul@uludag.edu.tr, 0224 2941756, Fen-Edebiyat Fakültesi, Matematik Bölümü, 16059, Görükle / Bursa
17	Website:	http://ismailnacicangul.com
18	Objective of the Course:	To give the notion of integral, applications of integral together with sequences and series including power series
19	Contribution of the Course to Professional Development:	
20	Learning Outcomes:	

		1	Knows the notion of integral
		2	Knows integral applications
		3	Can obtain power series expansion of a given function
		4	Knows the notions of sequence and series and makes their applications
		5	Can transfer between cartesian, polar and parametric coordinate systems and can differentiate the differences
		6	Knows the origins and history of the main notions
		7	Knows the corresponding English meanings of the main notions
		8	
		9	
		10	

21	Course Content:	

Course Content:		
Week	Theoretical	Practice
1	Definition of indefinite integral, basic notions	Applications of the definition
2	Basic integration rules	Applications of basic integration rules

3	Change of variables, partial integration	Examples of change of variables and partial integration
4	Seperating into simple fractions, trigonometric variable changes	Examples of seperating into simple fractions and trigonometric variable changes
5	Binomial integrals, fundamental theorems of integral	Examples of Binomial integrals, applications of the fundamental theorems of integral
6	Definition of definite integral, basic notions	Applications of basic notions
7	Upper and lower sums, Riemann integral	Calculation of upper and lower sums for several functions, finding Riemann integral
8	Arc length and area	Examples of arc length and area calculations
9	Midterm exam and general review	Mixed examples
10	Area and volume of revolutionary surfaces	Examples of calculating area and volume of revolutionary surfaces
11	Sequences, properties of sequences, subsequences, limit of a sequence	Examples of sequences, finding subsequences, calculating limits
12	Series, special series	Calculations with series, examples of arithmetic and
14	Power series, expansion of a function into a	Examples of power series, examples of expansion of a approxiamation
22	Textbooks, References and/or Other Materials:	Calculus, Ismail Naci CANGUL (Editor), Nobel Yayinlari, 2012
		Genel Matematik 1, Mustafa BALCI, Balci Yayinlari, 2008
24	ECTS / WORK LOAD TABLE	

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	4.00	56.00
Practicals/Labs	14	2.00	28.00
Self study and preperation	14	7.00	98.00
Homeworks	0	0.00	0.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	20.00	20.00
Others	0	0.00	0.00
Final Exams	1	34.00	34.00
Total Work Load			236.00
Total work load/ 30 hr			7.87
ECTS Credit of the Course			8.00

TERM LEARNING ACTIVITIES	NUMBE	WEIGHT
Midterm Exam	1	40.00
Quiz	0	0.00
Home work-project	0	0.00
Final Exam	1	60.00
Total	2	100.00
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		

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	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0
ÖK2	5	0	0	5	0	0	5	4	0	0	0	0	0	0	0	0
ÖK3	5	0	0	5	0	0	5	4	0	0	0	0	0	0	0	0
ÖK4	2	4	0	0	5	0	2	5	0	0	0	0	0	0	0	0
ÖK5	5	3	0	0	5	0	2	4	0	3	0	0	0	0	0	0
ÖK6	0	0	0	0	5	0	0	2	0	3	0	0	0	0	0	0
ÖK7	0	0	0	0	0	5	0	0	0	3	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