MATHEMATICS II

1	Course Title:	MATHEMATICS II	
2	Course Code:	BIL1006	
3	Type of Course:	Compulsory	
4	Level of Course:	First Cycle	
5	Year of Study:	1	
6	Semester:	2	
7	ECTS Credits Allocated:	7.00	
8	Theoretical (hour/week):	2.00	
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:	Yrd.Doç.Dr. BAHTİYAR BAYRAKTAR	
15	Course Lecturers:		
16	Contact information of the Course Coordinator:	E-mail: bbayraktar@uludag.edu.tr, İş Tel: +90(224) 294 22 98. Adres: UÜ, Eğitim Fakültesi, İlköğretim Bölümü, Matematik Eğitimi Anabilim Dalı, 16059 Görükle / BURSA	
17	Website:		
18	Objective of the Course:	The purpose of the course is to comprehend the importance of mathematics and the basic notions of the mathematical concepts, plus to gain practice skills in this specialty.	
19	Contribution of the Course to Professional Development:		
20	Learning Outcomes:		
		1	Maximum-minimum problems can be solved.
		2	Exponential uncertainties are known.
		3	Graphic drawings are made.
		4	The indefinite integral can be defined.
		5	Techniques of integration are learnt.
		6	Different types of the integral function can be taken with the help of methods of integration.
		7	Properties of definite integrals are known.
		8	Area and volume calculations using the definite integral can be made.
		9	Concept of matrix is known. Operations related with matrices can be made.
		10	Systems of linear equations can be solved.
21	Course Content:		

Course Content:

Week	Theoretical	Practice
1	Absolute maximum and absolute minimum values of a function. Problem solving.	Absolute maximum and absolute minimum values of a function. Problem solving.

2	Indefinite integrals. Integration techniques.	Indefinite integrals. Integration techniques.
3	3 Indefinite integrals. Change of variables. Indefinite integrals. Change of variables.	3 Indefinite integrals. Change of variables. Indefinite integrals. Change of variables.
4	Indefinite integrals. Techniques of integration. Partial integration. Usage of trigonometric equations. Integration of rational functions	Indefinite integrals. Techniques of integration. Partial integration. Usage of trigonometric equations. Integration of rational functions.
5	Indefinite integrals. Techniques of integration. Usage of trigonometric equations. Integration of rational functions	Indefinite integrals. Techniques of integration. Usage of trigonometric equations. Integration of rational functions
6	Indefinite integrals. Techniques of integration. Integration of rational functions	Techniques of integration. Integration of rational functions
7	The concept of definite integral. Lower, Upper and Riemann sums. Leibnitz- Newton Formula. Its Specifications. Average value theorem.	Calculation of definite integral
8	Techniques of integral calculus. Change of variables. Partial integration.	Techniques of integral calculus.
9	Area volume and curve lengths calculations with the definite integral	Area, volume and curve lengths calculations with the definite integral
10	Area, volume and curve lengths calculations with the definite integral	Area, volume and curve lengths calculations with the definite integral
11	Improper integrals.	Improper integrals.
12	[illegible]	[illegible]
13	[illegible]	[illegible]
14	Systems of linear equations and matrices	Systems of linear equations and matrices
22	Textbooks, References and/or Other Materials:	1. Prof. Dr. Hilmi HACISALİHOĞLU, Assoc. Dr. M. BALCI. Basic and General Mathematics. Volume I, 4th Edition. 2. Linear algebra lecture notes, Fuat ERGEZER. http://www.mat.itu.edu.tr/ergezen/lineer.aspx http://www.matematik.com/dershotlari/lineercebir_matrisler.PDF
23	Assesment	

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	2.00	28.00
Practicals/Labs	14	2.00	28.00
Self study and preperation	14	9.00	126.00
Homeworks	0	0.00	0.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	8.00	8.00
Others	0	0.00	0.00
Final Exams	1	20.00	20.00
Total Work Load			210.00
Total work load/ 30 hr			7.00
ECTS Credit of the Course			7.00

Midterm Exam	1	40.00
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		

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	2	5	0	0	5	0	0	0	0	4	0	0	3	0	3	4
ÖK2	1	2	0	0	1	0	0	0	0	1	0	0	2	0	1	1
ÖK3	3	5	0	0	4	0	0	0	0	4	0	0	4	0	3	4
ÖK4	1	3	0	0	1	0	0	0	0	3	0	0	3	0	2	2
ÖK5	1	2	0	0	3	0	0	0	0	3	0	0	3	0	2	2
ÖK6	1	2	0	0	3	0	0	0	0	2	0	0	3	0	2	2
ÖK7	1	2	0	0	3	0	0	0	0	4	0	0	3	0	1	3
ÖK8	1	5	0	0	4	0	0	0	0	4	0	0	3	0	3	4
ÖK9	1	5	0	0	4	0	0	0	0	3	0	0	4	0	2	4
ÖK10	1	5	0	0	4	0	0	0	0	4	0	0	3	0	3	4
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	**1 very low**		**2 low**		**3 Medium**		**4 High**			**5 Very High**						