MATHEMATICS WITH COMPUTER

1	Course Title:	MATHEMATICS WITH COMPUTER
2	Course Code:	BMM1008
3	Type of Course:	Compulsory
4	Level of Course:	First Cycle
5	Year of Study:	1
6	Semester:	2
7	ECTS Credits Allocated:	4.00
8	Theoretical (hour/week):	2.00
9	Practice (hour/week):	2.00
10	Laboratory (hour/week):	0
11	Prerequisites:	
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Öğr. Gör. Dr. Filiz Yağcı
15	Course Lecturers:	Nisa ÇELİK
16	Contact information of the Course Coordinator:	gfiliz@uludag.edu.tr
17	Website:	
18	Objective of the Course:	Through Maple commands to do mathematical operations on other courses they taught, and the Maple commands to learn on their own.
19	Contribution of the Course to Professional Development:	
20	Learning Outcomes:	

	1	The use and purpose of the command in Maple grip.
	2	Maple is a mathematical process of fetching results in the encoding.
	3	Bildiği Maple komutu yardımıyla bilmediği Maple komutlarını kodlayabilme.
	4	Learning from other programming languages ??used by mathematicians, programming languages, with the help of Maple.
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21 Course Content:

Course Content:

Week	Theoretical	Practice
1	Maple and Maple commands, uses the format editor.	Maple editor's introduction, the use of the command.
2	Elementary algebraic operations, and commands.	Enforcement of various examples of lectures are given to students in computer commands.

3	Some basic commands, assignments and variables, find solutions to simple equations, variables not leave you alone, mathematical expressions replacement.	Enforcement of various examples of lectures are given to students in computer commands.
4	Element representation of clusters of Maple, subset, finding the subset, the number of subsets, set operations, cartesian coordinate system commands, basic drawing commands, types of numbers used in mathematics, and questioning,	Enforcement of various examples of lectures are given to students in computer commands.
5	Calculation with the symbol of addition and multiplication, absolute value, square root and fundamental numbers, polynomials, fractional expressions, algebraic expressions, expansion, factorization and polynomial greatest common divisor and least common multiple for the calculation.	Enforcement of various examples of lectures are given to students in computer commands.
6	Draw a polygon, planar graphs, the axes are shown on the chart and graphics, multiple fonts, writing off the graphics functions, graphing polar coordinates, the three-dimensional graphics, animated graphics.	Enforcement of various examples of lectures are given to students in computer commands.
7	Repeating courses and midterm exam	Repeating courses.
8	Representation of functions with maple, one to one and bijective functions, the operations functions, inverse function to calculate and graph plotting.	Enforcement of various examples of lectures are given to students in computer commands.
9	Limits and continuity.	Enforcement of various examples of lectures are given to students in computer commands.
10	Basic differentiation rules, implicit differentiation, derivative of inverse functions, parametric functions, derivatives, derivatives of logarithmic and exponential functions, f (x) g (x) in the form of derivatives of functions, trigonometric functions, inverse trigonometric functions, derivatives, derivatives of inverse trigonometric fonksiyonşarın, Higher-Order derivatives.	Enforcement of various examples of lectures are given to students in computer commands.
11	Applications of derivatives: Increasing and decreasing functions, critical points, convex and concave, the turning point, maximum and minimum points.	Enforcement of various examples of lectures are given to students in computer commands.
12	Indefinite integral, definite integral, changing variables, the partial integral method, simple fractions.	Enforcement of various examples of lectures are given to students in computer commands.
13	Integral as the limit of Riemann sums, and the integral of the function graph. Simple commands are used in the creation of a maplet.	Enforcement of various examples of lectures are given to students in computer commands.
14	Maplette buttons, add titles and text window.	Enforcement of various examples of lectures are given to students in computer commands.
22	Textbooks, References and/or Other Materials:	•“Maple ve Maple ile Matematik “, Basri Çelik. •“The Maple Book”, F.Garvan.
23	Assesment	

TERM LEARNING ACTIVITIES	**NUMBER**	**WEIGHT**
Midterm Exam	1	40.00
Quiz	0	0.00
Home work-project	1	10.00
Final Exam	1	50.00
Total	3	100.00

Contribution of Term (Year) Learning Activities to Success Grade	50.00
Contribution of Final Exam to Success Grade	50.00
Total	100.00
Measurement and Evaluation Techniques Used in the Course	

24 ECTS / WORK LOAD TABLE

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	0	0.00	0.00
Homeworks	1	22.00	22.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	21.00	21.00
Others	0	0.00	0.00
Final Exams	1	21.00	21.00
Total Work Load			120.00
Total work load/ 30 hr			4.00
ECTS Credit of the Course			4.00

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	0	0	5	0	0	4	0	4	4	0	0	0	0	0	0
ÖK2	0	0	0	5	0	0	4	0	4	4	0	0	0	0	0	0
ÖK3	0	0	0	5	0	0	4	0	4	4	0	0	0	0	0	0
ÖK4	0	0	0	5	0	0	4	0	4	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**