

MATHEMATICS WITH COMPUTER

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| 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. | |

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| 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 | | |
| Activites | | Number | Duration (hour) | Total Work Load (hour) |
| Theoretical | parametric functions, derivatives, derivatives of logarithmic and exponential functions, f (x) | 14 | 2.00 | 28.00 |
| Practicals/Labs | | 14 | 2.00 | 28.00 |
| Self study | trigonometric functions, inverse trigonometric functions, derivatives, derivatives of inverse | 0 | 0.00 | 0.00 |
| Homeworks | | 1 | 22.00 | 22.00 |
| Projects | | 0 | 0.00 | 0.00 |
| 11 | Applications of derivatives: Increasing and | Enforcement of various examples of lectures are given to | | |
| Field Studies | | 0 | 0.00 | 0.00 |
| Midterm exams | and concave, the turning point, maximum and minimum points. | 1 | 21.00 | 21.00 |
| Others | | 0 | 0.00 | 0.00 |
| Final Exams | variables, the partial integral method, simple fractions | 1 | 21.00 | 21.00 |
| Total Work Load | | | | 120.00 |
| Total work load of the function graph. Simple | | students in computer commands. | | 4.00 |
| ECTS Credit of the Course | | | | 4.00 |
| 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 | | NUMBE R | 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 | |

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| 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 |

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| 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 | | | |