# MATHEMATICS

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| 1 | Course Title: | MATHEMATICS | |
| 2 | Course Code: | MAT115 | |
| 3 | Type of Course: | Optional | |
| 4 | Level of Course: | Short Cycle | |
| 5 | Year of Study: | 1 | |
| 6 | Semester: | 2 | |
| 7 | ECTS Credits Allocated: | 3.00 | |
| 8 | Theoretical (hour/week): | 2.00 | |
| 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: | Öğr.Gör. GÜLEN TÜMER | |
| 15 | Course Lecturers: | Meslek Yüksekokulları Yönetim Kurullarının görevlendirdiği öğretim elemanları. | |
| 16 | Contact information of the Course Coordinator: | gtumer@uludag.edu.tr<br>0 224 7112781 / 617 33<br><br>Uludağ Üniversitesi İnegöl MYO 16400<br>İnegöl / BURSA | |
| 17 | Website: | | |
| 18 | Objective of the Course: | To be able to provide the students with the competence to apply mathematical knowledge and skills required for their profession into their fields | |
| 19 | Contribution of the Course to Professional Development: | The aim of the lesson is to provide the students with the information about how to use mathematics in different areas and provide them with skills to solve problems, analytical thinking and decision making in an effective and rational way. | |
| 20 | Learning Outcomes: | | |
| | | **1** | To be able to recognize numerical sets |
| | | **2** | To be able to perform operations related with numbers |
| | | **3** | To be able to solve problems that include exponential and root statements |
| | | **4** | To be able to make judgments by relating numbers with other subjects of mathematics |
| | | **5** | To be able to perform algebraic operations |
| | | **6** | To be able to perform polynomial operations |
| | | **7** | To be able to use abbreviations in the operations |
| | | **8** | To be able to solve equations |
| | | **9** | |
| | | **10** | |
| 21 | Course Content: | | |
| | **Course Content:** | | |
| Week | Theoretical | | Practice |

| | | |
|---|---|---|
| **1** | The description of cardinal numbers, natural numbers, integer numbers, real numbers, rational and irrational numbers, their features and operations related with these numbers | |
| **2** | The description of cardinal numbers, natural numbers, integer numbers, real numbers, rational and irrational numbers, their features and operations related with these numbers | |
| **3** | Exponential and Root Quantities, related rules and operations | |
| **4** | Exponential and Root Quantities, related rules and operations | |
| **5** | Equations (First degree equations with one unknown and two unknown) | |
| **6** | Ratio, proportion and averages (Direct proportion, inverse proportion, arithmetic average, weighted aritmetic average, geometric average and harmonic average) | |
| **7** | Ratio, proportion and averages (Direct proportion, inverse proportion, arithmetic average, weighted aritmetic average, geometric average and harmonic average) | |
| **8** | Mid-Term and Course Review | |
| **9** | Identity Statements (Square of the total of two terms, square of the difference of two terms, total of the squares of two terms, the difference of the squares of two terms) | |
| **11** | Factorization (By grouping, according to full | |
| **12** | Factorization (Factorization of ax2+bx+c statement) | |
| **14** | Equations (Quadratic equations with one | |
| **22** | Textbooks, References and/or Other | Öğr. Gör. Sıddık ARSLAN. Temel ve Genel Matematik. Sevuktekin Mustafa, Aksüyek Handan, Biçer Yılmaz Hatice. Sosyal Bilimler MYO için Temel Matematik. Dora |

| Activites | Number | Duration (hour) | Total Work Load (hour) |
|---|---|---|---|
| Theoretical | 14 | 2.00 | 28.00 |
| Practicals/Labs | 0 | 0.00 | 0.00 |
| Self study and preperation | 14 | 2.00 | 28.00 |
| Homeworks | 0 | 0.00 | 0.00 |
| Projects | 0 | 0.00 | 0.00 |
| Field Studies | 0 | 0.00 | 0.00 |
| Midterm Exams | 1 | 16.00 | 16.00 |
| Others | 0 | 0.00 | 0.00 |
| Final Exams | 1 | 18.00 | 18.00 |
| Total Work Load | | | 90.00 |
| Total work load/ 30 hr | | | 3.00 |
| ECTS Credit of the Course | | | 3.00 |

| TERM LEARNING ACTIVITIES | NUMBER | 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 |

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| Measurement and Evaluation Techniques Used in the Course | Sample problems. Students are given time to think about sample questions to solve and simple questions are asked orally so that thay can concentrate on the lesson and that they can pay their attention to it. |

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