Course Syllabus

Code - Course Title	**MAT245 - Basic Mathematics I**
Course Type	III. SEMESTER
Laboratory + Practice	2+0
ECTS	**3.0**
Language of Instruction	Türkçe
Course Type	Area Elective Courses
Course Instructor(s)	DOÇ. DR. AYŞE TANRIDİLER

Mode of Delivery	The mode of delivery of this course is Face to face.
Place of Delivery	On Campus
Used Educational Platforms	Face-to-face
Prerequisites	There is no prerequisite or co-requisite for this course.
Courses Recomended	MAT241-Mathematics 1 and MAT242-Mathematics 2
Recommended Resources	none
Work Placement	Not Applicable.
Aims of the Course	Basic Mathematics 1

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 1	**LO-1** **LO-2** **LO-3**	Four basic operation problems with natural numbers and integers	Lecture, Question & Answer, Discussion, Problem Solving, Brain Storming
Week - 2	**LO-3** **LO-5**	Four basic operation problems with natural numbers and integers	Lecture, Question & Answer, Discussion, Problem Solving, Brain Storming
Week - 3	**LO-3** **LO-5** **LO-7**	Four basic operation problems with natural numbers and integers	Lecture, Question & Answer, Discussion, Problem Solving, Brain Storming
Week - 4	**LO-3** **LO-5** **LO-7**	Four basic operation problems with natural numbers and integers	Lecture, Question & Answer, Discussion, Problem Solving, Brain Storming
Week - 5	**LO-1** **LO-2**	Fractions	Lecture, Question & Answer, Discussion, Problem Solving, Brain Storming, Demonstration and Practice, Concept Mapping

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Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 6	**LO-1** **LO-2**	Properties of fractions, types of fractions, and equivalent fractions	Lecture, Question & Answer, Discussion, Problem Solving, Brain Storming, Demonstration and Practice, Concept Mapping
Week - 7	**LO-4** **LO-7**	Operations with fractions	Lecture, Question & Answer, Discussion, Problem Solving, Brain Storming, Practice/Practical Work/Workshop
Week - 8	**LO-1** **LO-2** **LO-3** **LO-4** **LO-5** **LO-7**	Midterm exam	Practice/Practical Work/Workshop
Week - 9	**LO-4** **LO-7**	Operations with fractions	Lecture, Question & Answer, Discussion, Problem Solving, Brain Storming
Week - 10	**LO-4** **LO-5** **LO-7**	Fraction problems	Lecture, Question & Answer, Discussion, Problem Solving, Brain Storming
Week - 11	**LO-4** **LO-5** **LO-7**	Fraction problems	Lecture, Question & Answer, Discussion, Problem Solving, Brain Storming
Week - 12	**LO-1** **LO-6**	Decimal representations	Lecture, Question & Answer, Discussion, Problem Solving, Brain Storming, Demonstration and Practice, Concept Mapping
Week - 13	**LO-6** **LO-7**	Operations with decimal representations	Lecture, Question & Answer, Discussion, Problem Solving, Brain Storming
Week - 14	**LO-5** **LO-6** **LO-7**	Problems with decimal representations	Lecture, Question & Answer, Discussion, Problem Solving, Brain Storming

Learning Outcomes

#	Learning Outcome
1	The student can define basic mathematical concepts, notations, and properties related to natural numbers, integers, and fractions.
2	The student can explain the properties, representations, and relationships between natural numbers, integers, and fractions.
3	The student can perform the four basic arithmetic operations with natural numbers and integers, executing the given mathematical processes correctly and using the appropriate operational steps.
4	The student can perform mathematical calculations on numerical data by applying the four basic operations with fractions.
5	The student can analyze problems involving natural numbers, integers, and fractions encountered in daily life and computer operator applications, and determine the appropriate solution method.
6	The student can read and interpret numerical data encountered in computer environments using fractions and decimal representations to perform calculations.
7	The student can evaluate the results of operations performed with natural numbers, integers, and fractions by checking them in terms of operational steps and problem conditions.

Sustainable Development Goals

✓ Quality Education ✓ Partnerships for Purposes

Course Theme

✓ Economics, Finance and Management ✓ Data Science

AKTS Workload

Activity	Duration (Hour)	Count	Workload
Teorik Derse Katılım	2.00	14	28
Sınıf Dışı Çalışma (Ön Hazırlık & Pekiştirme Amaçlı)	2.00	14	28
Ödevler	2.00	9	18
Proje - Rapor - Sunum Hazırlama	0.00	0	0
Ara Sınav Hazırlığı (sınav süresi dahil)	1.00	3	3
Final Sınavı Hazırlığı (sınav süresi dahil)	1.00	4	4
Uygulama (Laboratuvar, Müzik/Enstrüman Uygulaması, Atölye/Saha Çalışması vb.)	0.00	0	0
Staj Uygulaması	0.00	0	0
		Calculated ECTS	**3.0**

Assessment Method and Passing Requirements

✓ Open-Ended Test ✓ Short-Answer Test ✓ True-False Test ✓ Fill-in-the-Blank Test ✓ Homework

Assessment Method and Passing Requirements	Quamtity	Percentage (%)
1.Midterm Exam	1	30
Final Exam	1	50

Assessment Method and Passing Requirements	Quamtity	Percentage (%)
Homework	1	20
	Sum (%)	**100**