Course Syllabus

Code - Course Title	**MAT147 - Fundamentals of Mathematics**
Course Type	I. SEMESTER
Laboratory + Practice	3+0
ECTS	**6.0**
Language of Instruction	Türkçe
Course Type	Required Courses
Course Instructor(s)	DOÇ. DR. İSKENDER TAŞDELEN

Mode of Delivery	This course is only conducted face to face.
Prerequisites	There is no prerequisite or co-requisite for this course.
Courses Recomended	None
Work Placement	N/A

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 1		Propositions, Axiomatic Systems	
Week - 2		Concept of Set, Properties of Sets, Operations on Sets, Relations Between Sets	
Week - 3		Relations and Functions	
Week - 4		Set Theoretic Paradoxes, Axiomatic and Naive Set Theory	
Week - 5		Properties of Natural Numbers, Proofs by Induction	
Week - 6		Integers, Rational Numbers	
Week - 7		Real Numbers	
Week - 8		Complex Numbers	
Week - 9		Algebraic Structures, Semigroup, Group, Boolena Algebra	
Week - 10		Ring, Field	
Week - 11		Vector Space	
Week - 12		Linear Equations, Linear Equation Systems, Matrices, Matrix Operations, Solving Systems of Linear Equations by Matrices	
Week - 13		The Concept of Probability, Experiment, Occurrence, The Axioms of Probability, Bayes Theorem, Problems, Probability in decision	
Week - 14		Review	

Learning Outcomes

#	Learning Outcome
1	apply a fundamental knowledge of logic to mathematical reasoning.
2	apply basic knowledge of set theory.
3	analyze the properties of sets of numbers axiomatically.
4	explain properties of basic algebraic structures.
5	apply basic rules of finite probability theory.

Sustainable Development Goals

No content has been provided.

Course Theme

No content has been provided.

AKTS Workload

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

Assessment Method and Passing Requirements

No content has been provided.

Assessment Method and Passing Requirements	Quamtity	Percentage (%)
1.Midterm Exam	1	40
Final Exam	1	60
	Sum (%)	**100**