Course Syllabus

Code - Course Title	**MAT161 - Mathematics I**
Course Type	I. SEMESTER
Laboratory + Practice	3+0
ECTS	**5.0**
Language of Instruction	Türkçe
Course Type	Required Courses
Course Instructor(s)	PROF. DR. BAHAR BERBEROĞLU, PROF. DR. NAMIK KEMAL ERDOĞAN, DR. ÖĞR. ÜYESİ BİLAL SARAÇ, DOÇ. DR. ÇAĞLAR KARAMAŞA

Mode of Delivery	The mode of delivery of this course is Face to face
Prerequisites	There is no prerequisite or co-requisite for this course.
Courses Recomended	There is no recommended optional programme component for this course.
Recommended Resources	N. Kemal Erdoğan, MATEMATİK I İşletme ve Ekonomi Uygulamalı, Nisan Kitabevi, 2013.
Work Placement	N/A

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 1		Numbers, Real Number System and intervals and set operations on intervals, absolute value	
Week - 2		Relationship, function, properties of functions	
Week - 3		Polinomial functions, Linear function, second-order functions, graphing of piece-wise defined functions	
Week - 4		Exponential and Logaritmic function, Applications of exponential function	
Week - 5		Slope of the line, Line Equation, Intercept of two lines, Applications of linear functions	
Week - 6		Linear inequality and linear inequality systems	
Week - 7		Limit of a function, right-side and left-side limit, limit properties on functions	
Week - 8		Derivative of one-variable functions, derivative rules	
Week - 9		Derivative of one-variable functions, derivative rules	
Week - 10		Derivative of one-variable functions, derivative rules	
Week - 11		Applications of derivative; Increasing and decreasing functions, finding of maximum and minimum points, second-order derivative and concavity,finding of twist point,undetermined forms on limits	
Week - 12		Economics and management applications of derivative, graphing of a function	

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Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 13		Graphing of a function, Multi-variable functions, Three-Dimension Coordinate System	
Week - 14		Partial derivation, Extremum Points of Two-variable Functions	

Learning Outcomes

#	Learning Outcome
1	define set operations on intervals and functional relationship among variables.
2	make analytical verification of line and explain in an application.
3	describes limit of a real-valued function at a point and behavior of it in a neighborhood of a point.

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**