

Fizik Bölümü / PHYSICS /						
Course Code	Course Name	Teorical	Practice	Laboratory	Credits	ECTS
FZK-1013	General Mathematics I	4.00	2.00	0.00	5.00	6.00
Course Detail						
Course Language	: Turkish					
Qualification Degree	: Bachelor					
Course Type	: Compulsory					
Preconditions	: Not					
Objectives of the Course	: This course aims to describe, apply, and discuss limit, continuous, derivation, and derivation applications.					
Course Contents	: The Concept of Function and Graphs of Functions, The Concept of Continuity and Continuity Types, The Concept of Limits and Pointwise Limit, The Concepts of Limit at the Infinity, The Concept of Derivative and Differentiation Rules, Geometric Interpretation of Derivative, Indeterminate Forms and L'Hospital's rule, Applications of Derivatives (Increasing and Decreasing Functions, Convexity and Concavity of Functions, Maximum-Minimum Problems, Sketch a Graph of Functions).					
Recommended or Required Reading	: Genel Matematik ve Finans Uygulamaları, Editör Dr. Öğr. Üyesi Barış ALBAYRAK, 2018, Dora Yayınları CALCULUS: A Complete Course/ Robert A. Adams, Christopher Essex; Pearson, 2010 THOMAS' CALCULUS / Ross L. Finney, Maurice D. Weir, Frank R. Giordano; Boston: Addison-Wesley, 2000					
Planned Learning Activities and Teaching Methods	: Verbal Lecture, Written Exam					
Recommended Optional Programme Components	: -					
Course Instructors	: Doç. Dr. Serdar Enginoğlu					
Instructor's Assistants	: -					
Presentation Of Course	: Face to Face					

Course Outcomes	
Upon the completion of this course a student :	
1	Draw Functions' Graphs.
2	Describe Continuity.
3	Calculate Limits
4	Calculate Derivations
5	Apply Derivations

Preconditions						
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Weekly Contents					
	Teorical	Practice	Laboratory	Preparation Info	Teaching Methods
1.Week	*The Concept of Functions and Their Graphs				
2.Week	*The Concept of Functions and Their Graphs				
3.Week	*The Concept of Continuity and Continuity Types				
4.Week	*The Concept of Limits and Pointwise Limit				
5.Week	*Limits at the Infinity				
6.Week	*The Concept of Derivatives and Differentiation Rules				
7.Week	*The Concept of Derivatives and Differentiation Rules				
8.Week	*Indeterminate Forms and L'Hospital's rule				
9.Week	*Midterm Exam				*Midterm exam
10.Week	*Geometric Interpretation of Derivative				
11.Week	*Applications of Derivatives: Increasing and Decreasing Functions				
12.Week	*Applications of Derivatives: Concave and Convex Functions				
13.Week	*Applications of Derivatives: Maximum-Minimum Problems				
14.Week	*Applications of Derivatives: Sketch a Graph of Functions				

Assesment Methods %
