



ESOGÜ Mathematics and Computer Sciences Department
COURSE INFORMATION FORM

SEMESTER	Fall
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COURSE CODE	821611001	COURSE NAME	Analysis-I
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SEMESTER	WEEKLY COURSE PERIOD			COURSE OF			
	Theory	Practice	Labratory	Credit	ECTS	TYPE	LANGUAGE
1	3	2	0	4	6	COMPULSORY (x) ELECTIVE ()	Turkish

COURSE CATAGORY

Mathematics	Computer		Social Science
x		X	

ASSESSMENT CRITERIA

	Evaluation Type	Quantity	%
	MID-TERM	1st Mid-Term	1
2nd Mid-Term			
Quiz			
Homework			
Project			
Report			
Others (.....)			
FINAL EXAM		1	60
PREREQUIEITE(S)	None		
COURSE DESCRIPTION	Introduction (Real numbers and complex numbers, Functions, Graphs, Limits and continuity) Derivatives (Derivatives of elementer functions, Derivatives of logaritmic functions, Derivatives of exponentials functions, Derivatives of Hiperbolic functions, Derivatives of Inverse functions, Slope of Curves, Exstreme Values, Asymtots, Graphs, Polar Coordinates and Graphs in Polar Coordinates.		
COURSE OBJECTIVES	The main of the course is to introduce the concepts and techniques involved in the basic topics listed in this lecture and to develop skills in applying those concepts and techniques to the solution of problems		
ADDITIVE OF COURSE TO APPLY PROFESSIONAL EDUATION	Gain the ability of problem solution.		
COURSE OUTCOMES	Gain sufficient knowledge of Analysis subject, related with science and own branch; an ability to apply theoretical and practical knowledge on solving and modeling of problems.		
TEXTBOOK	Analiz-I, Prof. Dr. Mahmut Koçak		
OTHER REFERENCES	1) Genel matematik-I, Prof Dr. Ali Görgülü 2) Analiz-I Prof Dr.Mustafa Balcı 3) Genel matematik-I, Prof Dr. H:H:Hacısalihoğlu		
TOOLS AND EQUIPMENTS REQUIRED			

COURSE SYLLABUS

WEEK	TOPICS
1	Basic Properties of Real Numbers
2	Functions, Graphs, Combining Functions, Trigonometric functions
3	Functions, Graphs, Combining Functions, Trigonometric functions
4	Sequence and Series of Real Numbers
5	Convergence properties of Sequence and series
6	Limits and Continuity,
7	Limit and Continuity Theorems
8	Midterm Exam
9	Derivatives, Rules of Derivative
10	Derivatives of Combinations of Functions, The Chain Rule
11	Applications of the derivative,
12	Maximum and minimum values, derivati and theorems
13	Graphs of functions
14	Graphs of functions
15	Problem solutions
16-17	Final

NO	PROGRAM OUTCOMES	3	2	1
1	The ability to apply knowledges of Mathematics and Computer Sciences,	x		
2	To have sufficient theoretical and practical knowledge of Mathematics at international level,		x	
3	The ability of describing, modelling and solving of mathematical problems at Mathematics and related subjects,	x		
4	The skill to solve and design a problem process in accordance with a defined target,	x		
5	Skills to analyze data, interpret and apply to other datum and using these data on computer,		x	
6	The skill to use the modern techniques and computational tools needed for mathematical applications,		x	
7	The skill to make team work within the discipline and interdisciplinary,	x		
8	The ability to improve oneself by following the developments on other modern, scientific and technological subjects as well as Mathematics and Computer Sciences,	x		
9	The skill to communicate orally and in written way, in a clear and concise manner by having individual work skills and ability to independently decide and analytical thinking,	x		
10	The skill to have professional and ethical responsibility,		x	
11	The skill to have consciousness for quality issues and scientific research,		x	
12	The skill to be sensitive to environmental issues related with problems and development of living area and consistent in the social relations,	x		
13	Ability to solve problems in the working life faced to find an appropriate algoritms via mathematical modeling and to write computer programs,		x	
14	The skill to developed design of software systems at different complex levels,		x	
15	The credence of necessity of life-long learning and ability to apply the formation long-life learning.	x		

1:None. 2:Partially contribution. 3: Completely contribution.

Instructor(s): Prof.Dr. Mahmt KOÇAK

Signature:

Date: