ESOGÜ Mathematics and Computer Sciences
COURSE INFORMATION FORM

SEMESTER	Fall

COURSE CODE	821613001	COURSE NAME	Analysis III

SEMESTER	WEEKLY COURSE PERIOD			COURSE OF			
	Theory	**Practice**	**Labratory**	**Credit**	**ECTS**	**TYPE**	**LANGUAGE**
3	3	0	0	3	5	COMPULSORY (X) ELECTIVE ( )	Turkish

COURSE CATAGORY			
Mathematics	**Computer**	**Social Sciences**	
X			

ASSESSMENT CRITERIA

	Evaluation Type	Quantity	%
MID-TERM	1st Mid-Term	1	40
	2nd Mid-Term		
	Quiz		
	Homework		
	Project		
	Report		
	Others (………)		
FINAL EXAM		1	60

PREREQUIEITE(S)	None
COURSE DESCRIPTION	Vector valued function, limit, continuity, derivative, integration in the vector valued function, Multi variable function, limit, continuity, derivative in the multi variable function
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 develope skills in applying those concepts and techniques to the solution of problems.
ADDITIVE OF COURSE TO APPLY PROFESSIONAL EDUATION	Gain analytical thinking and problem solving ability.
COURSE OUTCOMES	The aim of this course is to enable students to learn and use the basic concepts in their field.
TEXTBOOK	Analiz III-IV, Prof. Dr. Mahmut Koçak Adams Kalkülüs, Matematiksel Analiz II, Prof.Dr. Mustafa BALCI
OTHER REFERENCES	
TOOLS AND EQUIPMENTS REQUIRED	None

<table>
<tr><td colspan="2" align="center">COURSE SYLLABUS</td></tr>
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WEEK	TOPICS
1	Vector valued function and its properties
2	Limit in the vector valued function
3	Continuity in the vector valued function
4	Derivative in the vector valued function
5	Integration in the vector valued function
6	Curves in the vector valued function and their properties
7	Euclidean subspaces ,Geometrical transformations, Inverse transformations
8	Combination of transformations, Transformation groups
9	Geometrical invariants
10	Transformations with linear equation
11	Transformations with linear equation
12	Some properties of motions
13	Translations and rotations
14	Reflections, reflections with translations, Similarity transformation
15,16	Final Exam

NO	PROGRAM OUTCOMES	3	2	1
1	The ability to apply knowledges of Mathematics - Computer,	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 - Computer,		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):

Signature: **Date:**