



ESOGÜ Mathematics and Computer Sciences Department
COURSE INFORMATION FORM

SEMESTER Spring

COURSE CODE	821616002	COURSE NAME	Complex Analysis
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SEMESTER	WEEKLY COURSE PERIOD			COURSE OF			
	Theory	Practice	Labratory	Credit	ECTS	TYPE	LANGUAGE
6	3	0	0	3	5	COMPULSORY (x) ELECTIVE ()	Turkish

COURSE CATAGORY

Mathematics	Computer		Social Science
x		X	

ASSESSMENT CRITERIA

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

PREREQUIEITE(S)	none
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COURSE DESCRIPTION	Complex Number Set, Complex Functions, Limits of Kompleks Functions, Continuty and Derivatives, Integrals, sequence and series of Complex numbers, sequence and series of Complex functions, Taylor and Laurent series, Residues, Evaluation of improper real integrals.
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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
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ADDITIVE OF COURSE TO APPLY PROFESSIONAL EDUATION	Gain the ability of problem solution.
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COURSE OUTCOMES	Gain sufficient knowledge of Complex Analysis subject, related with science and own branch; an ability to apply theoretical and practical knowledge on solving and modeling of problems.
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TEXTBOOK	Kompleks Analiz, Prof. Dr. Turgut Başkan
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OTHER REFERENCES	1) Kompleks analiz ve uygulamaları, Ruel V. Churchill, James Ward Brown 2) Kompleks deęişkenli fonksiyonlar teorisi, Prof. Dr. Mithat İdemem 3) Kompleks fonksiyonlar teorisi ders notları, Prof. Dr. İ. Kaya Özkın
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TOOLS AND EQUIPMENTS REQUIRED	
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COURSE SYLLABUS	
WEEK	TOPICS
1	Set of Complex Numbers
2	Complex Functions,
3	Limits and Continuity,
4	Problem solving,
5	Derivatives,
6	Analytic functions,
7	Problem solving
8	Midterm
9	Integrals of Complex functions
10	Sequence and series of Complex numbers
11	Problem solving
12	Sequence and series of Complex functions
13	Taylor and Laurent series
14	Residues and Evaluation of improper real integrals.
15	Problem solving
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 algorithms 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. İlker Akça

Signature:

Date: