ESOGÜ Mathematics and Computer Sciences Department
COURSE INFORMATION FORM

SEMESTER	Spring

COURSE CODE	821616001	COURSE NAME	Topology

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				

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	Open and closed sets, metric spaces, interior and exterior points, countinity, homeomorphisms and seperation axioms, sequences and nets, qutient topology, complete metric spaces, compactness of metric and topological spaces, connectedness, path connectedness.
COURSE OBJECTIVES	Recognizing topological structures.
ADDITIVE OF COURSE TO APPLY PROFESSIONAL EDUATION	Having ability to writing a concise topological proof and thinking analytically.
COURSE OUTCOMES	Having general knowledge about the notion of the Topology.
TEXTBOOK	**Koçak, M.** , Genel Topolojiye Giriş , 2011
OTHER REFERENCES	1. **Edmonton, A.** , General Topology , 1970 2. **Bryant, V**. , Metric Spaces , 1985 3. **Lipschutz, L**. , General Topology , 1965 4. **Sutherland, W.A**. , Introduction to Metric and Topological Spaces , 1975
TOOLS AND EQUIPMENTS REQUIRED	None.

COURSE SYLLABUS

WEEK	TOPICS
1	Introduction
2	Metric Spaces
3	Topological Spaces
4	Topological Spaces
5	Bases
6	Continuity
7	Homeomorphisms
8	Midterm Exam
9	Seperation Axioms
10	Seperation and Countability
11	Convergence
12	Product Spaces
13	Compactness
14	Quotient Spaces
15	Connectedness
16-17	Final Exam

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. Mahmut KOÇAK

Signature: **Date:**