	N	IETRI	C SPACES								
1	Course Title:	METRIC	SPACES								
2	Course Code:	MAT2028									
3	Type of Course:	Compuls	sory								
4	Level of Course:	First Cycle									
5	Year of Study:	2									
6	Semester:	4									
7	ECTS Credits Allocated:	4.00	4.00								
8	Theoretical (hour/week):	3.00									
9	Practice (hour/week):	0.00									
10	Laboratory (hour/week):	0									
11	Prerequisites:	None									
12	Language:										
13	Mode of Delivery:	Face to f	ace								
14	Course Coordinator:	Doç. Dr. AYSUN YURTTAŞ GÜNEŞ									
15	Course Lecturers:	Doç. Dr. Yeliz KARA ŞEN									
16	Contact information of the Course Coordinator:	Uludag University, Art and Science Faculty Department of Mathematics, 16059 Görükle Bursa-TURKEY 0 224 294 17 69/ ayurttas@uludag.edu.tr									
17	Website:										
18	Objective of the Course:	The aim of the course is to make the students gain the basic subjects of the metric sapaces and normed spaces. The goals are to teach the metric spaces, normed spaces and topological spaces, their examples and properties. To teach the related notions and results so that the students can make their applications, and let them know about the historical background of the topics.									
19	Contribution of the Course to Professional Development:	Students have the necessary equipment about toplogy courses in undergraduate education.									
20	Learning Outcomes:										
	•	1	Learns metric spaces, normed spaces, topology and topological spaces.								
		2	Learns the interior, the exterior, the boundary and the closure of a set in metric, normed and topological spaces.								
		3	Learns sequences and convergence of the sequences in the metric and normed sapaces.								
		4	Learns continuity of functions in metric and normed spaces.								
		5	Learns complete metric spaces.								
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		7									
		8									
		9									
		10									
21	Course Content:										
		Co	ourse Content:								
Week	k Theoretical Practice										

1	Metric spaces, their properties and examples.																	
2	Normed spaces, their properties and examples.																	
3	Open and closed sets in metric and the normed spaces.																	
4	Accu and	umula norm	ation a ned sp	and clo baces.	osure	points	of me	tric										
5	Sequ and	uenc norm	es an ned sp	d their aces.	conv	ergenc	e in m	netric										
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7	Cont and	tinuit norm	y and ned sp	unifor aces.	m cor	ntinuity	in me	tric										
8	Midterm exam.																	
9	Equi	ivaleı	nt met	trics a	nd the	eir prop	erties											
10	Com	nplete	e metr	ic spa	ces a	nd thei	r prop	erties										
11	The	com	pletior	ns of n	netric	spaces	3.											
12	Topological spaces, their properties and examples.																	
13	Open and closed sets in topological spaces.																	
14	Accι topo	umula logic	ation a al spa	and clo aces.	osure	points	of											
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ÖK4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contrib ution Level:	Contrib 1 very low ution Level:		2 low		3 Medium			4 High			5 Very High					