

GEOMETRY

1	Course Title:	GEOMETRY
2	Course Code:	MAT1004
3	Type of Course:	Compulsory
4	Level of Course:	First Cycle
5	Year of Study:	1
6	Semester:	2
7	ECTS Credits Allocated:	4.00
8	Theoretical (hour/week):	3.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	0
11	Prerequisites:	None
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Doç. Dr. MENEKŞE SEDEN TAPAN BROUTIN
15	Course Lecturers:	
16	Contact information of the Course Coordinator:	Y.Doç.Dr. Menekşe Seden TAPAN BROUTIN tapan@uludag.edu.tr 0 224 2942162 Uludağ Üniversitesi Eğitim Fakültesi, A Blok, İlköğretim Bölümü, 16059 Nilüfer,Bursa
17	Website:	
18	Objective of the Course:	Studying Euclidean geometry thorough all its axiomatic structure and conceptualizing the properties of plane figures.
19	Contribution of the Course to Professional Development:	
20	Learning Outcomes:	
	1	Explains the historical development of Euclidean and non-Euclidean geometries
	2	Describes the axiomatic structure of geometry
	3	Explains concepts of defined and undefined terms, axiom and theorem
	4	Read the geometry book written by Ataturk and understand its content and its importance
	5	Formulates basic axioms of Euclidean geometry and use them in proofs
	6	Comments geometric concepts with a deductive point of view
	7	Formulates sufficient and complete definitions for the concepts of triangle, rectangle and polygon and make modulation between these definitions and geometric properties
	8	Realises basic geometric drawings with ruler and compass and make detailed explanations for these drawings
	9	Defines the concepts of the circle and disk, prove theorems about the angle and length.
	10	Formulates properties of objects in space, areas and volumes of solids
21	Course Content:	
	Course Content:	

Week	Theoretical	Practice		
1	Euclidean and non-Euclidean geometries' historical development. Axiomatic structure of geometry, concepts of defined and undefined terms, axioms and theorems			
2	Review of the geometry book written by Atatürk. Combination axioms and relation and theorems and proofs related to the subject.			
3	Order axioms and relation and theorems and proofs related to the subject. Cantor's continuity axiom.			
4	Congruence axioms and relations for segments. Construction of segments, equilateral triangles using only compass and unitless ruler			
5	Concept of angle. Congruence axioms and relations for angles; theorems and proofs related to the subject. Construction of angles using only compass and unitless ruler.			
6	Concept of triangle. Congruence axioms and relations for triangles; theorems and proofs related to the subject. Construction of triangles using only compass and unitless ruler.			
7	Matching and equality in triangles. SAS definition. ASA, SSS, SAA, SSAA* theorems			
Activites		Number	Duration (hour)	Total Work Load (hour)
Theoretical	ruler and compass. Triangle inequality. SAS inequality and inclined line theorems and their	14	3.00	42.00
Practicals/Labs		0	0.00	0.00
Self study and preparation	Circle-line relations in the plane. Positions of two circles to each other and their drawings	14	4.00	56.00
Homeworks		4	12.00	48.00
Projects	Parallels axioms and relation and theorems	2	17.00	34.00
Field Studies		0	0.00	0.00
Midterm exams		1	25.00	25.00
Others		0	0.00	0.00
Final Exam	related with this axiom.Hilbert's parallelism	1	35.00	35.00
Total Work Load				240.00
Total work load/ 30 hr				8.00
ECTS Credit of the Course				4.00
22	Textbooks, References and/or Other Materials:			
23	Assesment			
TERM LEARNING ACTIVITIES		NUMBE R	WEIGHT	
Midterm Exam		1	40.00	
Quiz		0	0.00	
Home work-project		0	0.00	
Final Exam		1	60.00	
Total		2	100.00	
Contribution of Term (Year) Learning Activities to Success Grade		40.00		

Contribution of Final Exam to Success Grade	60.00
Total	100.00
Measurement and Evaluation Techniques Used in the Course	
24	ECTS / WORK LOAD TABLE

25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1	4	0	3	0	5	1	2	0	0	0	0	0	0	0	0	0
ÖK2	3	0	3	0	5	0	4	0	0	0	0	0	0	0	0	0
ÖK3	3	0	2	0	5	0	5	0	0	0	0	0	0	0	0	0
ÖK4	3	0	2	0	1	0	2	1	0	0	0	0	0	0	0	0
ÖK5	3	0	2	0	5	0	5	0	0	0	0	0	0	0	0	0
ÖK6	3	0	3	0	5	0	5	0	0	0	0	0	0	0	0	0
ÖK7	3	0	3	0	5	0	5	0	0	0	0	0	0	0	0	0
ÖK8	3	0	4	0	4	0	4	0	0	3	0	0	0	0	0	0
ÖK9	3	0	2	0	5	0	5	0	0	0	0	0	0	0	0	0
ÖK10	2	0	1	0	4	0	4	2	0	0	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	1 very low			2 low			3 Medium			4 High			5 Very High			