

ANALYTIC GEOMETRY I

1	Course Title:	ANALYTIC GEOMETRY I
2	Course Code:	MAT2009
3	Type of Course:	Compulsory
4	Level of Course:	First Cycle
5	Year of Study:	2
6	Semester:	3
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:	Yrd.Doç.Dr. MENEKŞE SEDEN TAPAN BROUTIN
15	Course Lecturers:	Y.Doç.Dr. Menekşe Seden TAPAN BROUTIN
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:	Introducing the coordinates system. Conceptualizing the basic concepts about points, lines and vectors on the plane and on the three-dimensional space.
19	Contribution of the Course to Professional Development:	
20	Learning Outcomes:	
	1	Defines concepts of point and line in plane analytic geometry.
	2	Relations between point and line in plane can be explained.
	3	Relations between different coordinate systems can be explained.
	4	Transitive practice in different coordinate systems can be done.
	5	Vectors in plane can be defined
	6	Transformation of displacement in plane can be explained and practiced.
	7	Transformation of rotation in plane can be explained and practiced.
	8	Vectors in three-dimensional space can be defined
	9	Cross and mixed scalar products can be explained
	10	Concepts of point, line and plane in three-dimensional space can be defined.
21	Course Content:	
	Course Content:	
Week	Theoretical	Practice

1	Coordinate systems, orthogonal coordinate system and practice	
2	Coordinate system and practice	
3	Polar coordinate system and practice	
4	Vectors in plane	
5	Lines in plane	
6	Cartesian form of line equation, distance between point and line	
7	Coordinate Transformations in Plane	
8	Displacement transformation	
9	Rotation transformation	
10	Vectors in three-dimensional space	
11	Vector/cross product	
12	Mixed scalar product	
13	Parallelism and orthogonality of two lines, angles between two lines	
14	Plane in three-dimensional space, distance between point and plane.	

22	Textbooks, References and/or Other Materials:	1. Kaya, R. (2009) Analytic Geometry, Science and Technology Publishing 2. Balci, M. (2011) Analytic Geometry, Balci Publishing 3. Lecture Notes
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Activites		Number	Duration (hour)	Total Work Load (hour)
Theoretical				
Midterm Exam	1	40.00	3.00	42.00
Practicals/Labs		0	0.00	0.00
Self study and preparation				
Home work project	0	0.00	3.00	42.00
Homeworks		0	0.00	0.00
Projects				
Total	2	100.00	0.00	0.00
Field Studies		0	0.00	0.00
Success Grade				
Midterm exams		1	16.00	16.00
Others		0	0.00	0.00
Final Exams		1	20.00	20.00
Total		100.00		
Total Work Load				120.00
Course work load/ 30 hr				4.00
ECTS Credit of the Course				4.00

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	0	5	2	0	0	0	0	0	0	0	0
ÖK2	4	0	3	0	4	0	5	2	0	0	0	0	0	0	0	0
ÖK3	4	0	3	0	4	0	5	2	0	0	0	0	0	0	0	0
ÖK4	4	0	3	0	4	0	5	2	0	0	0	0	0	0	0	0

ÖK5	4	0	3	0	4	0	5	2	0	0	0	0	0	0	0	0
ÖK6	4	0	2	0	4	0	5	2	0	0	0	0	0	0	0	0
ÖK7	4	0	2	0	4	0	5	2	0	0	0	0	0	0	0	0
ÖK8	4	0	3	0	4	0	5	4	0	0	0	0	0	0	0	0
ÖK9	4	0	3	0	4	0	5	4	0	0	0	0	0	0	0	0
ÖK10	4	0	3	0	4	0	5	4	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			