LINEAR ALGEBRA I

1	Course Title:	LINEAR ALGEBRA I
2	Course Code:	İMÖ2003
3	Type of Course:	Compulsory
4	Level of Course:	First Cycle
5	Year of Study:	2
6	Semester:	3
7	ECTS Credits Allocated:	3.00
8	Theoretical (hour/week):	2.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	0
11	Prerequisites:	
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Prof. Dr. RIDVAN EZENTAŞ
15	Course Lecturers:	
16	Contact information of the Course Coordinator:	rezentas@uludag.edu.tr 0224 2942287 Uludağ Üniversitesi Eğitim Fakültesi, E Blok, Matematik ve Fen Bilimleri Bölümü, Matematik Eğitimi ABD.
17	Website:	
18	Objective of the Course:	Students improve the ability of abstract thinking, the concepts of matrices and determinants intensified vector space, to create the basis for algebra classes.
19	Contribution of the Course to Professional Development:	Creates and develops the knowledge base of the prospective teacher. Comprehends the concepts related to the field and the relations between concepts based on the competencies gained in secondary education. Have defines and analyzes problems related to his field, and develops solutions based on evidence and research.
20	Learning Outcomes:	
	1	Gains the skill abstract thinking.
	2	Solves systems of linear equations using matrices and determinants.
	3	Consolidates the concept of vector space with the matrix and determinant.
	4	Understand the structure of vector space and subspace.
	5	Vectors in a vector space understands the concepts of linear dependence and linear independence.
	6	Understands the concept of a vector space basis and dimension.
	7	Establishes the relationship between the dimension of the row space.and a rank of matrix
	8	
	9	
	10	
21	Course Content:	

Course Content:

Week	Theoretical	Practice

1	Introducing the course, Matrix theory	
2	Matrix operations, primitive row and column operations	
3	Rank of a Matrix, Inverse of a square matrix	
4	Determinants	
5	Determinants	
6	Systems of linear equations	
7	Systems of linear equations	
8	Systems of linear equations	
9	Vector spaces, subspaces	
10	Subspace of a cluster stretch	
11	Linear dependence and linear independence	
12	A vector space and dimension of base	
13	Spaces of a matrix of rows and columns	
14	General Repetition	

| 22 | Textbooks, References and/or Other Materials: | Editör: Orhan ÖZER (1998), Matematik Öğretmenliği Lineer Cebir, Anadolu Üniversitesi Açık Öğretim Fakültesi Yayınları No:589.
H.Hilmi Hacısalihoğlu (2000) Lineer Cebir I, , Hacısalihoğlu Yayıncılık,
Bernard Kolman;(2004) Elementary Linear Algebra; Fifth Edition, |

Activites		Number	Duration (hour)	Total Work Load (hour)
Theoretical Midterm Exam	1	14 40	2.00	28.00
Practicals/Labs		0	0.00	0.00
Self study and preperation Home work project	0	0.00 14	1.00	14.00
Homeworks		0	0.00	0.00
Projects Total	2	100.00 1	0.00	0.00
Field Studies		0	0.00	0.00
Success Grade Midterm exams		1	20.00	20.00
Others		0	0.00	0.00
Total Exams Final		100.00 1	30.00	30.00
Total Work Load				112.00
Course Total work load/ 30 hr		3E are used in the teaching of the course. Midterm and final exams are taken into consideration in the		3.07
ECTS Credit of the Course				3.00

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	3	3	3	3	3	3	3	0	0	0	0	0	0	0	0	0
ÖK2	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0
ÖK3	4	3	3	3	3	3	3	0	0	0	0	0	0	0	0	0
ÖK4	4	3	3	3	3	3	3	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
ÖK6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK7	0	0	0	0	0	0	0	0	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