

Course Name	Course Code	Semester	T + P	Credit	ECTS
Linear Algebra			3 + 0	3	4

Prerequisite Courses	None
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If the language of Code	Turkish
Course class	Compulsory
If the Coordinator of Code	
Instructor	
Assistant Course	No
Objective of Course	Systems of linear equations, vector spaces, linear transformations, eigenvalue and eigenvectors are studied and various applications are aimed to be realized.
Course Learning Output	The students completed the course: <ul style="list-style-type: none"> • Ability to apply knowledge of mathematics, science and engineering • Gain ability to define, formulate and solve engineering problems
Contents Course	Linear Equation Systems are explained; Matrix Operations, Determinants and Applications will be given in detail.

Weeks	Topics
1	Linear Equation Systems. Gauss elimination method
2	Matrix and Matrix Operations
3	Determinants and Applications
4	A Matrix Rank and Inverse Matrix
5	Solving Linear Equation Systems with Matrices
6	Solving Linear Equation Systems with Matrices
7	Euclidean Space Vectors
8	MIDTERM
9	General Vector Spaces and Subspaces
10	Linear Independence and Base Concept
11	Inner Product Spaces
12	Linear Transforms, Eigenvalues and Eigenvectors
13	Diagonalization, Symmetric Matrices
14	İkinci Derece Formlar
15	FINAL EXAM

General Sufficiency
In evaluations, it is important for students to understand the main points of this lesson and use it in engineering applications.
References
<ul style="list-style-type: none"> • L. Smith “ Lineer Cebir (Linear Algebra)” , 1993 • A.Howard ”Elementaty Linear algebra with applications”, 2005 • Kreyszig E. “ Advanced engineering mathematics” ,1999
Assessment
Midterm: 40% Final exam: 60% of the project or assignment can be made and announced at the beginning of the semester evaluations.