



MAT1320-Linear Algebra

Tentative Syllabus

Mehmet E. KÖROĞLU

Spring 2024

YILDIZ TECHNICAL UNIVERSITY, DEPARTMENT OF MATHEMATICS

mkoroglu@yildiz.edu.tr

References

References

- Every week before the lesson, I will share my own lecture notes in beamer presentation format under the **Announcements** tab on my AVESIS page.
- Additionally, two problem sets and some sample exams will be shared throughout the semester.
- A password will be shared in the class to access all these materials.
- The shared materials are sufficient for students who follow the course and study regularly.
- You can find most of the reference books in the central library of the university.

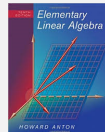
References



Howard Anton (2000).

Elementary linear algebra with applications.

Wiley.

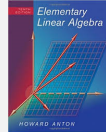


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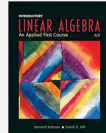
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Bernard Kolman and David R. Hill (2005).

Introductory linear algebra: An applied first course.
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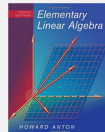
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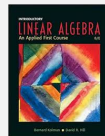
Wiley.



Bernard Kolman and David R. Hill (2005).

Introductory linear algebra: An applied first course.

Prentice-Hall.



Seymour Lipschutz (2018).

Linear algebra.

SAGE.



References



A.G. Ağargün, H. Burhanzade (2024).

Lineer Cebir ve Çözümlü Problemleri.
EFEAKADEMİ Yayınları.



References



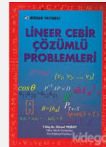
A.G. Ağargün, H. Burhanzade (2024).

Lineer Cebir ve Çözümlü Problemleri.
EFEKADEMI Yayınları.



Gürsel Yeşilot (2017).

Lineer Cebir Çözümlü Problemleri.
Birsen Yayınevi.



Course Outline

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- Matrices

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- Special Types of Square Matrices

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- Eigenvalues and Eigenvectors, Characteristic Polynomial,

Grading System and Grade Distribution

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Your course grade will be based on your midterm and final exams as follows:

Midterm-1	Midterm-2	Final Exam
40%	20%	40%

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The grading distribution of the last term was as follows:

AA	BA	BB	CB	CC	DC	DD	FD	FF
74-100	70-73	64-69	56-63	48-55	40-47	32-39	24-31	0-23

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