MATH 201 - MATRIX THEORY - SUMMER 2026

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Exams & Grading: Midterm Exam (40%)
Final Exam (60%)
You must get 20% of the points of the midterm to take the final exam.
There will be NO MAKE-UP for the midterm exam.

The passing grade for the course will be least 40% of the total grade.

Course Schedule: Section 01: Günaydın, *Place: NH301* MTWTh 13:00 – 14:50
Section 02: Sevinis, *Place: NH301* MTWTh 11: 00 – 12:50

Textbook: G. Strang *Linear Algebra and Its Applications, 4th ed.*, Thomson Learning, 2006.

ALL ANNOUNCEMENTS WILL BE DONE THROUGH THE MOODLE PAGE.

Week	Date	Topics	Section
1	24, 25 June	*Ch1: Matrices and Gaussian elimination*	1.1–1.5
2	29, 30 June	Inverses and transposes. *Ch2: Vector spaces.* Vector spaces and subspaces.	1.6, 2.1
3	01, 02 July	Solutions of matrix equations. Four fundamental subspaces. Linear independence.	2.2, 2.3, 2.4
4	6, 7 July	Basis. Dimension. Rank. Span.	2.3, 2.4
5	8, 9 July	Linear transformations.	2.6
6	13, 14 July	*Ch3: Orthogonality.* Orthogonality. Projection onto line. Projection.	3.1–3.3
7	16, 20 July	Least squares approximation. Orthogonal bases. Orthogonal matrices.	3.3, 3.4
8	21, 22 July	Gram-Schmidt process. **Midterm on July 23**	3.4
9	27, 28 July	*Ch4: Determinants.* Properties. Formulas. Applications of determinants.	4.1–4.4
10	29, 30 July	*Ch5: Eigenvalues and eigenvectors.* Diagonalization.	5.1, 5.2
11	3, 4 Aug	Difference equations. Differential equations. Exponential.	5.3, 5.4
12	5. 6 Aug	Complex matrices. Similarity transformations.	5.5, 5.6
13	10, 11 Aug	*Appendix B: The Jordan form*	Appndx.B