

## Math 3A Syllabus

**Text:** *Linear Algebra and Its Applications*, David Lay

Lecture	Date	Section	Topic
1	April 1	1.1	Systems of Linear Equations
2	April 3	1.2	Row Reduction and Echelon Forms
3	April 5	1.3	Vector Equations
4	April 8	1.4	The Matrix Equation $Ax=b$
5	April 10	1.5	Solution Sets of Linear Systems
6	April 12	1.6	Applications of Linear Systems
7	April 15	1.7	Linear Independence
8	April 17	1.8	Introduction to Linear Transformations
9	April 19	1.9	The Matrix of a Linear Transformation
10	April 22	2.1	Matrix Operations
11	April 24		Review
12	April 26		<b>Midterm #1</b>
13	April 29	2.2	The Inverse of a Matrix
14	May 1	2.3	Characterizations of Invertible Matrices
15	May 3	2.8	Subspaces of $\mathbb{R}^n$
16	May 6	2.8, 2.9	Cont.
17	May 8	2.9	Dimension and Rank
18	May 10	3.1	Introduction to Determinants
19	May 13	3.2	Properties of Determinants
20	May 15		Review
21	May 17		<b>Midterm #2</b>
22	May 20	5.1	Eigenvectors and Eigenvalues
23	May 22	5.2	The Characteristic Equation
24	May 24	5.2, 5.3	Cont.
25	May 29	5.3	Diagonalization
26	May 31	5.4	Eigenvectors and Linear Transformations
27	June 3	6.1	Inner Product, Length, and Orthogonality
28	June 5	6.2	Orthogonal Sets (up to page 343)
29	June 7		Review