

Date	Sec	Topic
3 Sept	1.1, 1.2	Matrices, Vectors, and Linear Combinations
8 Sept	1.3	Systems of Linear Equations
10 Sept	1.4	Gaussian Elimination
15 Sept	1.6	Span of a Set of Vectors
17 Sept	1.7	Linear Dependence and Linear Independence
22 Sept	1.7, 2.1	Homogeneous Systems, Matrix Multiplication
24 Sept	2.3	Invertibility and Elementary Matrices,
	App. E	Uniqueness of Reduced Row Echelon Form
28 Sept	2.4	Inverse of a Matrix
	2.5	Partitioned Matrices and Block Multiplication
1 Oct	2.6	LU Decomposition of a Matrix
6 Oct		Review
8 Oct		Midterm Exam
13 Oct	3.1	Determinants; Cofactor Expansions
15 Oct	3.2	Properties of Determinants
20 Oct	4.1	Subspaces
22 Oct	4.2	Basis and Dimension
27 Oct	4.3	Column Space and Null Space of a Matrix
38 Oct	5.1	Eigenvalues and Eigenvectors
3 Nov	5.2	Characteristic Polynomial
5 Nov	5.3	Diagonalization of a Matrix
10 Nov	5.5	Examples of Diagonalization
12 Nov		Midterm Exam
17 Nov	6.1	Geometry of Vectors; Projection onto a Line
19 Nov	6.2	Orthogonal Sets of Vectors, Gram-Schmidt Process, QR factorization
24 Nov	6.3	Orthogonal Projection; Orthogonal Complements
26 Nov		No Class; Friday class schedule
1 Dec	6.4	Least Squares; Normal Equations
3 Dec	6.5, 6.6	Orthogonal Matrices; Diagonalization of Symmetric Matrices
8 Dec	6.6	Diagonalization of Quadratic Forms Spectral Decomposition for Symmetric Matrices
10 Dec		Catch up and review