Math 3A Syllabus, Fall 2016, Instructor: Nam Trang

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

Lecture	Section	Topic
1	1.1	Systems of Linear Equations
2	1.2	Row Reduction and Echelon Forms
3	1.3	Vector Equations
4	1.4	The Matrix Equation Ax=b
5	1.5	Solution Sets of Linear Systems
6	1.6	Applications of Linear Systems
7	1.7	Linear Independence
8	1.8	Introduction to Linear Transformations
9	1.9	The Matrix of a Linear Transformation
10	2.1	Matrix Operations
11	2.2	The Inverse of a Matrix
12	2.3	Characterizations of Invertible Matrices
13	2.8	Subspaces of R^n
14	2.8, 2.9	(Cont.) Subspaces of R^n
15		Review
16		Midterm
18	3.1	Introduction to Determinants
19	3.2	Properties of Determinants
22	3.3	Cont.
23	5.1	Eigenvectors and Eigenvalues
24	5.2	The Characteristic Equation
25	5.2, 5.3	Cont.
26	5.3	Diagonalization
27	5.4	Eigenvectors and Linear Transformations
28	6.1	Inner Product, Length, and Orthogonality
29	6.2	Orthogonal Sets
30	6.3,6.4	Orthogonal projections and the Gram-Schmidt process
31		Review