Math 246 Contents

Semester 472

Book: Elementary Linear Algebra with Supplemental Applications
11^{th} Edition
By: Howard Anton & Chris Rorres

Topic	Section
Chapter 1 Systems of Linear Equations and Matrices 4 weeks	1.1 Introduction to Systems of Linear Equations
	1.2 Gaussian Elimination
	1.3 Matrices and Matrix Operations
	1.4 Inverse, algebraic properties of matrices
	1.5 Elementary Matrices and a Method for Finding A^{-1}
	1.6 More on Linear Systems and Invertible Matrices
	1.7 Diagonal, Triangular, and Symmetric Matrices
	1.8 Matrix Transformations
Chapter 2 Determinants 2 weeks	2.1 Determinants by Cofactor Expansion
	2.2 Evaluating Determinants by Row Reduction
	2.3 Properties of Determinants; Cramer's Rule
Chapter 4 General Vector Spaces 3 weeks	4.1 Real Vector Spaces
	4.2 Subspaces
	4.3 Linear Independence
	4.4 Coordinates and Basis
	4.5 Dimension
	4.6 Change of Basis
	4.7 Row Space, Column Space, and Null Space
	4.8 Rank, Nullity, and the Fundamental Matrix Spaces
Chapter 6 Inner Product Spaces 2 weeks	6.1 Inner Products
	6.2 Angle and Orthogonality in Inner Product Spaces
	6.3 Gram–Schmidt Process;
Chapter 8 General Linear Transformations	8.1 General Linear Transformations
	8.4 Matrices for General Linear Transformations

2 weeks	
Chapter 5 Eigenvalues and Eigenvectors 1 week	5.1 Eigenvalues and Eigenvectors
	5.2 Diagonalization