21-241: Matrix Algebra – Summer I, 2006

Schedule

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 1	5/22	5/23	5/24	5/25	5/26
	1.1 Solution of Linear Systems 1.2 Matrices and Vectors	1.3 Gaussian Elimination	1.4 Pivoting and Permutations	1.5 Matrix Inverse	1.6 Transposes and Symmetric Matrices 1.9 Determinants
Week 2	5/29	5/30	5/31	6/1	6/2
	Memorial Day	1.8 General Linear Systems Homework 1 due	Exam 1 Review	**Exam 1**	2.1 Real Vector Spaces 2.2 Subspaces
Week 3	6/5	6/6	6/7	6/8	6/9
	2.3 Span & Linear Independence 2.4 Base and Dimension Homework 2 due	2.5 The Fundamental Matrix Subspaces	3.1 Inner Products 3.2 Inequalities	3.3 Norms 3.4 Positive Definite Matrices	3.5 Completing the square
Week 4	6/12	6/13	6/14	6/15	6/16
	Exam 2 Review Homework 3 due	**Exam 2**	4.1 Minimization Problems 4.2 Minimization of Quadratic Functions	5.1 Orthogonal Bases 5.2 The Gram-Schmidt Process	5.3 Orthogonal Matrices
Week 5	6/19	6/20	6/21	6/22	6/23
	5.5 Orthogonal Projections and Least Squares Homework 4 due	5.6 Orthogonal Subspaces	Exam 3 Review	**Exam 3**	8.1 Simple Dynamical System 8.2 Eigenvalues and Eigenvectors
Week 6	6/26	6/27	6/28	6/29	6/30
	8.3 Eigenvector Bases and Diagonalization Homework 5 due	8.4 Eigenvalues of Symmetric Matrices	8.5 Singular Values	Final Exam Review	**Final Exam** Homework 6 due