

Tentative Daily Schedule			
Day	Date	Remark	Topic
1	26-Aug		Matrices and Basic Operations - calculations with matrices
2	28-Aug		Systems of Linear Equations - Motivation and matrix forms
3	2-Sep		Systems of Linear Equations - Gaussian Elimination
4	4-Sep	Project Ideas Discussed	Systems of Linear Equations - Gauss Jordon, Matrix Inverse
5	9-Sep		Matrix Factorizations - (P)LU, (P)LDU
6	11-Sep	Last Drop Date 15 Sep	Vector spaces: Vector spaces and subspaces
7	16-Sep		Vector spaces: linear combinations, linear independence, span
8	18-Sep	Project Proposals Due	The Fundamental Subspaces - Geometry and Algebra
9	23-Sep		The Fundamental Subspaces - cntd.
10	25-Sep		Positive Definite Matrices and Applications
11	30-Sep		Bases and Orthogonality: Basis and Dimension, orthogonality
12	2-Oct		In-Class Exam
13	7-Oct		Gram-Schmidt; Matrix Factorizations - QR
14	9-Oct	Project Progress Review - 1	Minimization of Quadratic Forms
15	14-Oct		Minimization of Quadratic Forms; Application: "Closest Points" in Color Search
16	16-Oct		Least Squares: Unique solution vs Non-Unique solution
17	21-Oct		Least Squares; Applications: Equilibrium Mechanics
18	23-Oct		Eigenvalues and Eigenvectors: Basics and Diagonalization
19	28-Oct		Eigenvalues and Eigenvectors; Application to Stability of Dynamical Systems
20	30-Oct	Project Progress Review - 2	Initial Project Presentations
21	4-Nov		Eigenvalues and Eigenvectors: Application to PageRank
22	6-Nov		Low Rank Approximations of matrices : Applications to Image processing
	11-Nov	Veterans Day	NO CLASS
23	13-Nov		Matrix Factorizations - SVD
24	18-Nov	Project Progress Review - 3	SVD : application 1 - Geometry of Image Compression
25	20-Nov		SVD: application 2 - PCA
26	25-Nov		Matrix Exponentials and Applications
	27-Nov	Thanksgiving Break	NO CLASS
27	2-Dec		Final Project Presentations
28	4-Dec		Final Project Presentations