

CLASS NUMBER	TOPIC	SECTION	CLASS PROBLEMS
1	The Geometry of Linear Equations	1.2	1.2 (2,7)
2	The Geometry of Linear Equations	1.2	1.2 (8,11)
3	Gaussian Elimination	1.3	1.3 (1,3,4,7)
4	Gaussian Elimination	1.3	1.3 (8,14,16)
5	Matrix Notation and Matrix Multiplication	1.4	1.4 (4,5,21)
6	Triangular Factors and Row Exchanges	1.5	1.5 (2,7,11)
7	Triangular Factors and Row Exchanges	1.5	1.5 (21,28)
8	Inverses and Transposes	1.6	1.6 (6,10,11)
9	Inverses and Transposes	1.6	1.6 (15,17,41,42)
10	Vector Spaces and Subspaces	2.1	2.1 (2,4)
11	Vector Spaces and Subspaces	2.1	2.1 (5,24)
12	Solving $Ax = 0$ and $Ax = b$	2.2	2.2 (1,4,5)
13	Solving $Ax = 0$ and $Ax = b$	2.2	2.2 (13, 34)
14	Solving $Ax = 0$ and $Ax = b$	2.2	2.2 (44,54,59)
15	Linear Independence	2.3	2.3 (1,3,5,8)
16	Basis, and Dimension	2.3	2.3 (16)
17	Basis, and Dimension	2.3	2.3 (19,23)
18	The Four Fundamental Subspaces	2.4	2.4 (2,13)
19	The Four Fundamental Subspaces	2.4	2.4 (18,24,29)
20	Orthogonal vectors and Subspaces	3.1	3.1 (1,7,9,12)
21	Cosines and Projections onto Lines	3.2	3.2 (1,3)
22	Cosines and Projections onto Lines	3.2	3.2 (8,17)
23	Projections and Least Squares	3.3	3.3 (1,4,)
24	Projections and Least Squares	3.3	3.3 (6,23)
25	Properties and Formulas of the Determinant	4.2	4.2 (4,5)
26	Applications of the Determinant	4.4	4.4 (2,14,29)
27	Eigenvalues and Eigenvectors	5.1	5.1 (1,2)
28	Eigenvalues and Eigenvectors	5.1	5.1 (6,7)
29	Eigenvalues and Eigenvectors	5.1	5.1 (15,17)
30	Diagonalization of a Matrix		5.2 (8)
31	Diagonalization of a Matrix	5.2	5.2 (3,4,6)
32	Diagonalization of a Matrix		5.2 (16)

33	Complex Matrices	5.5	5.5(1,2)
34	Complex Matrices	5.5	Theorems for Hermitian
35	Complex Matrices	5.5	matrices 5.5(15,33)
36	Tests for Positive Definiteness	6.2	6.2(1,3,11)
37	Singular Value Decomposition	6.3	6.3(1,4)
38	Singular Value Decomposition	6.3	6.3(14)
39	Matrix Norm and Condition Number	7.2	7.2(15,17)
40	Iterative Methods for $Ax = b$	7.4	7.4(2)

ASSIGNMENT PROBLEMS
1.2 (15,17)
1.2 (18,22)
1.3 (9,10,12)
1.3 (26,32)
1.4 (11,28,56)
1.5 (9,27,30)
1.5 (9,32,40,41)
1.6 (2,4,5,12)
1.6 (37,52,54,58)
2.1 (1,6,8)
2.1 (26,28)
2.2 (7,12)
2.2 (15,32)
2.2 (36,56)
2.3 (4,9,10)
2.3 (13,31)
2.3 (32,40)
2.4 (3,6,11)
2.4 (17,28,31,32)
3.1 (2,10,11,18, 33)
3.2 (5,9)
3.2 (11,19)
3.3 (2,9)
3.3 (12,24)
4.2 (2,6,13)
4.4 (5,7,27)
5.1 (3,9)
5.1 (10,11)
5.1 (19,22,27,39)
Matrix with defect.
5.2 (8,12,16,32)
5.2 (17)

5.5(3,10)
Theorems for Skew-
Hermitian matrices
5.5(22,43)
6.2(25,34)
6.3(2,3)
6.3(14)
7.2(2,10)
7.4(5)