

Topic(s)	Reading	Problems
Systems of Linear Equations	1.1	2,8,15,17,18,19,22,23,26,28,30 (intro to Matlab)
Matrices and Matrix Operations	1.2	5,9,11,12,14,18,20,21,23,28–30,37
Inverses of Matrices	1.3	1,6,7,10,11(b),13,14,16,26
Special Matrices	1.4	4,12,17,20,22(c),24(d),26,32,33
Determinants	1.5	5,8,12,15,16
Further Props. of Dets.	1.6	4,6,10,11,13,15(c),16,17
Proofs on Dets.	1.7	5,6
Linear Independence in \mathbb{R}^n	2.3	1–3,6
Vector Spaces	2.1	2,3,9
Subspaces	2.2	1(c,d),2(b,d),3(c),5,11–13,21,22
Linear Independence	2.3	7,10,14,17,21,24,25,27,28,32
Dimension	2.4	2,3(a,b),4(c,d),7,10,14,18,21,26
Wronskians	2.5	5–8,12,14,16
Intro to DE	3.1	1,4,7
Modeling with DE	3.6	1,2,4,11,13,15,16
Theory of Linear DE	4.1	2,3,6,10,11,15,17,24, AHP 4,5
Homogeneous CCLDE (i)	4.2	2,5,23, AHP 2,3
CCLDE (ii)	4.2	7,10–13,20,22,24,29,30,37,40–42
Undetermined Coeffs.	4.3	1,4,9,11,18,26
Applications (i)	4.5	5–8,11,13
Applications (ii)	4.5	1,3,15,16,18
Linear Transformations	5.1	3,4,7,12,13,18,20,33,35,36
Algebra of LT	5.2	6,11,14,18,20,23
Matrices	5.3	1,5,7,9,17
Eigenvalues	5.4	5,8,9,16,17,20,26,32
Similar Matrices, Jordan form	5.5	5,8,9,16,17,21,24,30,31,32,36
Inner Product Spaces	9.1	6–8,12($w > 0$),16,18,20–22
Orthonormal Bases	9.2	2,6,9,13
Schur's Thm., Symm. Matrices	9.3	7,12,18,19
Systems of LDE	6.1	1,4,5,9,17,27,28
Hom. CC, Diag.	6.2	3,5,11,15,22,25,28,30
Hom. CC, Nondiag.	6.3	3,17
Nonhom. Linear Systems	6.4	1,5,11,13,15
Converting Eqns.	6.5	4,5,13