

	Dates	Topics	Sections	Homework
Week 1	1/13, 1/15, 1/16	Course introduction, systems of linear equations, Gaussian elimination, matrix algebra	1.1, 1.2, 1.3, 2.3	Homework 1: due 1/22. 1.1: 2, 8, 17, 27 1.2: 2, 4, 10, 29, 30 1.3: 2, 4, 25 (Problem 25 moved to Homework 2)
Week 2	No class on 1/20. 1/22, 1/23	Linear transformations and matrices	2.1, 2.3, 2.4	Homework 2: due 1/27. 1.3: 17, 18, 19, 25 2.1: 13, 14a, (part b for extra credit) 2.3: 13, 14
Week 3	1/27, 1/29, 1/30	Linear transformations, continued	2.2, 2.4	Homework 3: due 2/3. 2.1: 49 2.2: 2, 4 2.3: 29, 35, 39 2.4: 6, 10, 28, 29, 82. Do not solve 82
Week 4	2/3, 2/5, 2/6	Subspaces of \mathbb{R}^n , bases, and dimension	3.1, 3.2, 3.3	Homework 4: due 2/10. 3.1: 6, 8, 14, 16 3.2: 14, 16, extra credit: 6. Do not solve 50
Week 5	2/10, 2/12, 2/13	Subspaces, coordinates	3.3, 3.4	Homework 5: due 2/24. 3.3: 21, 27, 29. Extra credit: 31 3.4: 7, 26, 27, 38, extra credit: 50 (For 3.4.27, just write a product of three matrices; you don't have to do the multiplication.)
Week 6	No class 2/17- 2/20	-	-	-
Week 7	2/24, 2/26	Orthogonal projections, orthonormal bases, Gram-Schmidt algorithm	5.1, 5.2	No homework assigned this week
	2/27	Midterm 1: Chapters 1-3		
Week 8	3/2, 3/4, 3/5	Orthogonal projections, orthonormal bases, Gram-Schmidt algorithm	5.1, 5.2	Homework 6: due 3/12. 5.1: 2, 5, 16, 17, 27, 28 5.2: 4, 6, 32, 34
Week 9	3/9, 3/11, 3/12	Orthogonal transformations, cross products, least squares	5.3, 5.4, Appendix (pp. 443-445)	Homework 7: due 3/19. 5.3: 3, 4, 36, 40, 41 5.4: 2, 5, 7, 9 Compute the following cross products: (a) $[1, 2, -3] \times [0, 2, 3]$ (b) $[3, 0, 4] \times [1, -2, 2]$
Week 10	3/16, 3/18, 3/19	Determinants	6.1, 6.2, 6.3.	Homework 8: due 3/30 (no late submissions). 6.1: 6, 8, 10, 17, 24, 28, 43, 44 6.2: 8, 10, 14 6.3: 22, 24, 25
Week 11	No class 3/23- 3/26	-	-	-
Week	3/30, 4/1,	Eigenvalues and eigenvectors,	7.1, 7.2	Homework 9: due 4/8

12	4/2	continued; introduction to symmetric matrices		7.1: 2, 8, 10, 15, 16 7.2: 15, 16
Week 13	4/6, 4/7, 4/8	Eigenvalues and eigenvectors, continued; introduction to symmetric matrices	7.3, 7.4	Homework 10: due 4/23 7.3: 8, 10, 14, 20, 26 7.4: 8, 12, 24, 32
Week 14	No class 4/13, 4/15	4/16: Midterm 2, Chapters 5 and 6		
Week 15	4/20, 4/22, 4/23	Symmetric matrices	8.1, 8.2	Homework 11: due 4/29. 8.1: 9, 11 8.2: 3, 4, 15
Week 16	4/27, 4/29	Final exam review	1-8	-
Week 17	TBD	Final exam Location TBD		