

Math 307E schedule - C Roettger

Week (beginning)	Sections	Topics	Homework problems
1 (01/14)	1.1 1.2 1.3	Systems of equations Row reduction Vector equations	7, 12, 15, 16, 25, 33 2, 10, 13, 17, 24, 29, 33 5, 6, 7, 8, 9, 10
2 (01/21)	1.4 1.5	Matrix equations Solution sets	7, 8, 9, 10, 12, 14, 18, 36 11, 12, 15, 16, 24, 28
3 (01/28)	1.7 1.8 1.9	Linear independence Linear transformations Matrix of linear transformations	2, 8, 14, 20, 36 2, 4, 8, 16, 32 6, 16, 18, 25, 26, 27, 28
4 (02/4)		Review for exam 1 EXAM 1 (Feb 5)	
5 (02/11)	2.1 2.2	Matrix operations Inverse of a matrix	4, 6, 10, 16, 23, 27, 28 2, 4, 7, 32, 33
6 (02/18)	2.3 2.4 2.8	More on invertible matrices Partitioned matrices Subspaces, kernel and range	2, 4, 5, 6, 7 2, 25 2, 3, 5, 6, 7, 17, 23, 25
7 (02/25)	2.9 3.1 3.2	Dimension and rank Determinants Properties of determinants	2, 5, 7, 10, 13, 18 2, 4, 6, 10, 16 2, 4, 6, 8, 10, 26
8 (03/3)		Review for exam 2 EXAM 2 (Mar 6)	
	4.1	Vector spaces, subspaces	2, 8, 10, 13, 22
9 (03/10)	4.2 4.3 4.4	Null spaces, column spaces Bases Coordinate systems	6, 10, 24, 26, 32, 38 10, 14, 20, 22, 34 4, 8, 12, 14, 24
10 (03/17)		SPRING BREAK	
11 (03/24)	4.5 4.6 4.7	Dimension Rank Change of basis	2, 6, 12, 20, 24 4, 8, 10, 12, 18 2, 4, 6, 10, 14
12 (03/31)	5.1 5.2 5.3	Eigenvalues and eigenvectors Characteristic equations Diagonalization	2, 4, 8, 16, 20 2, 6, 10, 14, 16 2, 4, 6, 8, 14, 20
13 (04/07)	5.4	Linear transformations Review for exam 3 EXAM 3 (Apr 10)	2, 4, 8, 12, 16
14 (04/14)	6.1 6.2 6.3	Inner products Orthogonal sets Orthogonal projection	2, 6, 8, 16, 18, 24 2, 6, 8, 12, 15 4, 6, 8, 12, 16
15 (04/21)	6.4 6.5	Gram-Schmidt process Least-squares problems	4, 8, 12 2, 6, 15
16 (04/28)		Dead Week, Review	
		Final Exam Fri 5/9, 9.45	