

Math 616 - Spring 2020

Week	Date	Material	Homework
1	1/27	Determinants	Kuttler (other book) p.126 — Section 3.1 # 7, 8, 15, 19, 21, 22
2	2/3	Eigenvalues, Eigenvectors, and Diagonalization	Nicholson p. 189 — Section 3.3 # 1abc, 3, 8a, 11ab. Optional #5
3	2/10	Diagonalizability, Complex Eigenvalues	Nicholson p. 189 — Section 3.3 # 1h, 2b, 5, 11d
4	2/18	Quiz (Tuesday class) Applications of diagonalization	Nicholson Section 3.4 # 1a, 1b, 2a (setup), 4, & board problem
5	2/24	Systems of Linear ODEs	Nicholson Section 3.5 # 1a, 1c, 6 Mixing Problem (see CrowdMark)
6	3/2	Matrix Exponential	Homework 6 (CrowdMark)
	3/9	Spring Break	
7	3/16	Inner Products	Homework 7 (Crowdmark)
8	3/23	Orthonormal basis Orthogonal Projection Fourier Coefficients	Homework 8 (Crowdmark)
9	3/30	Orthogonal Complement Transpose, Projections Least Squares	Homework 9 (Crowdmark)
10	4/6	Least Squares cont'd, and More Applications	Homework 10 (Crowdmark)
11	4/13	Spectral Theorem(s) and Singular Value Decomposition	Homework 11 (Crowdmark)
12	4/20	Constrained Optimization of Quadratic Forms	Homework 12 (Crowdmark)
13	4/27	Misc., Review	Take-Home Exam
	5/4	Final Exam Monday 5/4/20 4:45p-7:20p	