

Tentative Schedule for MTH 342

Fall 2019

	Monday	Tuesday	Wednesday	Thursday	Friday
Sep			25 Introduction	26 Recitation	27 Vector spaces (Chap 1, Sec 1)
Sep/Oct	30 Subspaces (Chap 1, Sec 7), (1.C in Axler's), Linear combination (Chap 1, Sec 2)	1	2 Linear independence, spanning set, basis (Chap 1, Sec 2)	3 Recitation	4 HW 1 due Linear maps and examples (Chap 1, Sec 3)
Oct	7 Composition of linear maps, matrix multiplication (Chap 1, Sec 5)	8	9 Null space, system of linear equations (Sec 3.B in Axler's)	10 Recitation	11 HW 2 due Range space, null-rank theorem (Sec 3.B in Axler's)
Oct	14 Linear isomorphism (Chap 1, Sec 6.3)	15	16 Determinant – definition (Chap 3, Sec 1 & 2)	17 Recitation	18 HW 3 due Determinant – computation by row/column elimination
Oct	21 Determinant – computation by cofactors (Chap 3, Sec 5)	22	23 Eigenvalues (Chap 4, Sec 1.1, 1.2, 1.3)	24 Recitation	25 HW 4 due Finding eigenvalues, real vs complex
Oct/Nov	28 Invariant space, eigenspaces (5.A in Axler's)	29	30 Midterm review	31 Recitation	1 Midterm (In class)
Nov	4 Finding eigenspaces	5	6 Diagonalizing a matrix (Chap 4, Sec 2)	7 Recitation	8 HW 5 due Diagonalizing a matrix (Chap 4, Sec 2)
Nov	11 No class (Veterans Day)	12	13 Inner product (6.A in Axler's)	14 Recitation	15 HW 6 due Inner product (6.A in Axler's)
Nov	18 Normed space (Chap 5, Sec 1.5)	19	20 Orthogonality (Chap 5, Sec 2)	21 Recitation	22 HW 7 due Application of orthogonality
Nov	25 Gram-Schmidt procedure (Chap 5, Sec 3)	26	27 Orthogonal component & Minimizing problem (6.C in Axler's)	28 No class (Thanksgiving)	29 No class
Dec	2 HW 8 due Least square solutions (Chap 5, Sec 4)	3	4 Unitary matrices & Rigid motions (Chap 5, Sec 7)	5 Recitation	6 (last day of class) Final exam review
Dec	9	10	11	12 Final exam 9:30 - 11:20, Weniger 149	13