

Math 20580 schedule

Spring 2026

January 12	Poole 2.1, 2.2: Gaussian elimination, row echelon form
14	2.2: Gauss-Jordan elimination, free and leading variables
16	2.3, 3.1, 3.3: spans, matrix operations
19	Martin Luther King Day - no classes
21	3.6: linear transformations
23	2.3, 3.5: linear independence, subspaces
26	3.5: row, column, null space of a matrix; basis for a subspace
28	3.5: dimension, rank, nullity
30	6.3: coordinate systems
February 2	6.3: change of basis
4	6.1: vector spaces and subspaces
6	6.2: linear independence, basis, dimension
9	6.4: linear transformations
11	Review and leeway
February 12	Exam I: 8:00–9:15 a.m., covers material until February 11
13	6.2, 6.5: kernel and range, isomorphisms, coordinates in a vector space
16	6.3, 6.6: change of basis in a vector space; matrix of a linear transformation
18	6.6: more on matrix of a linear transformation
20	4.2: intro to determinants
23	4.2: more on determinants, Cramer’s rule
25	4.1, 4.3: eigenvectors and eigenvalues
27	4.4: similarity
March 2	4.4: diagonalization
4	Review and leeway
March 5	Exam II: 8:00–9:15 a.m., covers mostly material February 13–March 4
6	4.6: complex eigenvalues
March 7–15	Spring Break
16	1.2, 5.1, 5.2: orthogonality, orthogonal complements
18	5.1, 5.2: orthogonal projection, orthonormal sets
20	5.1, 5.3: orthonormal sets, Gram-Schmidt process, QR factorization
23	5.3, 7.3: QR factorization, least squares solutions
25	7.3: least squares solutions
27	Zill 1.1, 1.2: classification of differential equations, solutions, initial value problems
30	2.1, 2.2: Direction fields, autonomous equations, separable equations
April 1	2.3, 2.4: linear first order ODEs, exact equations
April 3–6	Easter holiday
8	2.4, 3.1: more on exact equations, modeling with first order equations
10	4.1: second order linear ODEs
13	4.1, 4.2: more on second order ODEs, Wronskians, reduction of order
15	Review and leeway
April 16	Exam III: 8:00–9:15 a.m., covers mostly material March 6–April 15
17	4.3: second order homogeneous equations with constant coefficients
20	4.4: nonhomogeneous equations – method of undetermined coefficients
22	4.4, 4.6: more on undetermined coefficients, variation of parameters
24	4.6: more on variation of parameters
27	5.1: Vibrations
29	Review and leeway
May 6	Final Exam 4:15–6:15 p.m., covers all material