

The following is a tentative schedule of our lectures this semester, along with the associated textbook readings. All numbered sections are from Friedberg, Insel, and Spence. Lettered sections are from Beezer; if you are viewing this PDF electronically, clicking on them will take you directly to the appropriate sections online.

Date	Readings	Topics
Tu 8/27	1.1, 1.2	Introduction; vector spaces
Th 8/29	1.2, 1.3	Vector spaces; subspaces
Tu 9/3	1.4, SSLE	Linear combinations; systems of linear equations
Th 9/5	RREF	Reduced row echelon form
Tu 9/10	TSS, 1.5	Solutions to linear systems; linear (in)dependence
Th 9/12	1.5, 1.6	Linear (in)dependence; bases and dimension
Tu 9/17	1.6, 2.1	Bases and dimension; linear transformations
Th 9/19	2.1	The dimension theorem (rank-nullity)
Tu 9/24	2.2	Matrix representations of linear transformations
Th 9/26	2.3	Composition and matrix multiplication
Tu 10/1	-	Midterm 1
Th 10/3	2.4, NMI, CRS	Invertibility and isomorphisms
Tu 10/8	2.5	Change of coordinates
Th 10/10	4.1, 4.2	2×2 determinants; $n \times n$ determinants
Tu 10/15	4.2	$n \times n$ determinants
Th 10/17	3.1, 4.3	Elementary matrices; properties of determinants
Tu 10/22	4.4, 5.1	Properties of determinants; eigenvalues and eigenvectors
Th 10/24	5.1	Eigenvalues and eigenvectors
Tu 10/29	5.2	Diagonalizability
Th 10/31	5.2, 5.4	Diagonalizability; invariant subspaces
Tu 11/5	-	Midterm 2
Th 11/7	5.4	The Cayley-Hamilton theorem
Tu 11/12	6.1	Inner products and norms
Th 11/14	6.2	The Gram-Schmidt process
Tu 11/19	6.3	The adjoint of a linear operator
Th 11/21	6.4	Normal and self-adjoint operators
11/25-29	-	Fall break
Tu 12/3	6.5	Unitary and orthogonal operators
Th 12/5	6.6	Orthogonal projections and the spectral theorem
Tu 12/10	7.1	Jordan canonical form
Th 12/12	-	Reading day
F 12/13	-	Final exam (Friday 1:30-4:30pm)