Diary
Updated: April 4, 2024.

Meeting	Day	Topic	Reference	Assignment
1	15/1	Vector spaces: definition and examples	§1B	*WS 1*
2	18/1	Subspaces, sums and direct sums	§1C	*WS 1*
3	18/1	Span, independence, bases	§2A, §2B	*WS 1*
4	22/1	Bases and dimension	§2B, §2C	*WS 2*
5	25/1	Linear maps, null spaces and range	§3A, §3B	*WS 2*
6	25/1	Fundamental Theorem of linear algebra	§3A, §3B	*WS 2*
7	29/1	Matrices associated to a linear map, Invertible morphisms	§3C, §3D	*WS 3*
8	1/2	Properties of invertible morphisms	§3D	*WS 3*
9	1/2	Products of vector spaces	§3E	*WS 3*
10	5/2	Quotient spaces	§3E	**HW 1**, *WS 4*
11	8/2	Dual spaces	§3F	*WS 4*
12	8/2	Dual morphisms and annihilator subspace	§3F	*WS 4*
13	19/2	Invariant subspaces	§5A	*WS 5*
14	22/2	Minimal Polynomial	§5B	*WS 5*
15	22/2	Minimal Polynomial	§5B	*WS 5*
16	26/2	Upper-Triangular Matrices	§5C	**HW 2**
–	29/2	**Midterm 1**	M 1-15	Midterm 1
17	11/3	Diagonalizable Operators	§5D	*WS 6*
18	14/3	Discussion of Midterm 1		
19	14/3	Inner Product Spaces, Norm Orthonormal basis, Gram–Schmidt procedure	§6A, 6B	*WS 6*
20	18/3	Riesz representability, Orthogonal Complement Adjoint Operator, Self-Adjoint and Normal Operators	§7A	*WS 7*
21	21/3	Spectral Theorem	§7B	*WS 7*
22	21/3	Spectral Theorem	§7B	*WS 7*
23	25/3	Generalized Eigenvectors	§8A	**HW 3**, *WS 8*
24	28/3	Generealized Eigenspace, Char. Polynomial	§8B	*WS 8*
	28/3	Multiplicity of Eigenvalues and Jordan canonical form	§8B	*WS 8*
25	8/4	Jordan form and Tensor Product	§8C	**HW 4**, *WS 9*
	11/4	**Midterm 2**	M 16,17-25	Midterm 2
31	15/4	Tensor Product and Trace of an operator	§9D, 8D	*WS 9*
32	18/4	(Alternating) Bilinear Forms	§9A	*WS 9*
33	18/4	(Alternating) Multilinear Forms	§9B	*WS 10*
34	22/4	Determinant of an Operator	§9C	*WS 10*
35	25/4	More on Determinant	§9C	*WS 10*
36	25/4	TBD	§9C	*WS 10*

- The reference concerns sections of the textbook.
- The first exam will cover the material from Meetings 1-15.
- The second exam will cover the material from Meetings 16, 17-25.
- WS means Worksheet. You don't have to turn them in, but they are the exercises that I expect you to know how to solve.

- HW means Homework. You need to turn these in and they will be graded.
- The final exam is commulative.