

## Sections to be covered

*The sections are numbered according to the 6<sup>th</sup> Edition of the Pearson textbook “Linear Algebra and its applications” by Lay, Lay, and McDonald. The assigned problems are found in the MyLab Math website. See the class schedule or MyLab Math for due dates.*

HW #	Section covered
1	1.1: Systems of linear equations
2	1.2: Row reduction and echelon forms
3	1.3: Vector equations
4	1.4: The matrix equation $Ax = b$
5	1.5: Solution sets of linear systems
6	1.7: Linear independence
7	1.8: Introduction to linear transformations
8	1.9: The matrix of a linear transformation
9	2.1: Matrix operations
10	2.2: The inverse of a matrix
11	2.3: Characterizations of invertible matrices
12	2.8: Subspaces of $R^n$
13	2.9: Dimension and rank
14	3.1: Introduction to determinants
15	3.2: Properties of determinants
16	3.3: Cramer’s rule, volume, and linear transformations
17	4.1: Vector spaces and subspaces
18	4.2: Null spaces, column spaces, row spaces, and linear transformations
19	4.3: Linearly independent sets; bases
20	4.4: Coordinate systems
21	4.5: The dimension of a vector space
22	4.6: Change of bases
23	5.1: Eigenvectors and eigenvalues
24	5.2: The characteristic equation
25	5.3: Diagonalization
26	5.4: Eigenvectors and linear transformations
27	5.5: Complex eigenvalues
28	5.6: Discrete dynamical systems