Material Covered
- Determinants
- Eigenvalues, eigenvectors, eigenspaces
- Coordinate vectors and change of bases
- Diagonalization and powers of matrices

Textbook Reference
- Chapter 5: sections 1 and 2
- Chapter 6 sections 1, 3, 4

Important Skills
- Be able to find the determinant of any matrix
    - By expansion along any row or column
    - By using facts about determinants (aka clever tricks)
- Be able to find the eigenvalues of any matrix.
- Be able to find the eigenvectors and eigenspaces of any matrix.
- Be able to relate properties of the matrix to properties of the eigenvalues, eigenvectors, and eigenspaces.
- Be able to recognize coordinate vectors and change from coordinates in any basis to any other basis.
- Be able to determine if a matrix is diagonalizable.
- Be able to diagonalize a matrix.