## Math 260 Sequence of Topics

From Linear Algebra and its Applications, 6th Edition, by Lay, Lay, McDonald

|  | Topic | Assignment |
| :---: | :---: | :---: |
| 1.1 | Systems of Linear Equations | 7, 9, 11, 13, 19, 21, 22, 35 |
| 1.2 | Row Reductions and Echelon Forms | $7,9,11,13,19,21,23,41$ |
| 1.3 | Vector Equations | $5,9,11,13,17,21,33,37,41$ |
| 1.4 | Matrix Equations | 9, 11, 13, 15, 21, 41, 42, 45 |
| 1.5 | Solution Sets of Linear Systems | $3,5,7,9,11,17,23,25,37,43,47,51$ |
| 1.6 | Applications of Linear Systems | $3,5,7,11,13$ |
| 1.7 | Linear Independence | $1,5,7,9,11,13,39,41,43$ |
| 1.8 | Linear Transformations | $1,3,5,7,9,11,17,19,32,33,37,38,39,40,41$ |
| 1.9 | The Matrix of a Linear Transformation | $1,3,5,7,9,17,19,21,33,35,41$ |
| 2.1 | Matrix Operations | $1,3,5,7,9,12,13,21,22,25,30,32,35,39$ |
| 2.2 | The Inverse of a Matrix | $1,3,5,7,9,23,25,26,27,28,29,34,39,41,43$ |
| 2.3 | Characterizations of Invertible Matrices | $1,3,5,7,23,25,28,29,33,35,36,41,46$ |
| 2.4 | Partitioned Matrices | 1, 3, 5, 7, 10, 17 |
| 3.1 | Introduction to Determinants | $1,3,5,7,9,11,13,15,17,23,25,27,29,37$ |
| 3.2 | Properties of Determinants | $\begin{aligned} & 5,7,9,11,13,15,17,19,21,23,25,37,40,41,42,43 \\ & 45,48 \end{aligned}$ |
| 3.3 | Cramer's Rule | 1, 3, 5, 7, 9, 26, 32a |
| 4.1 | Vector Spaces | $1,3,5,7,9,11,15,17,20,21,30,38,41$, |
| 4.2 | Null, Column and Row Spaces | $1,3,5,7,9,11,13,15,19,23,39,41,42,43,46,47$ |
| 4.3 | Linear Independence and Bases | $1,3,5,7,9,11,13,15,19,33,34,39,41,43$ |
| 4.4 | Coordinate Systems | $1,3,5,7,9,11,13,23,25,27,29,33,35,36$ |
| 4.5 | The Dimension of a Vector Space | $1,3,5,7,9,11,13,15,27,29,31,32,33,37,41,51$ |
| 4.6 | Change of Basis | 1, 5, 7, 9, 15 |
| 5.1 | Eigenvectors and Eigenvalues | $3,5,7,9,11,13,15,17,33,35,37$ |
| 5.2 | The Characteristic Equation | $1,3,5,7,9,11,13,15,17,20,31,32$ |
| 5.3 | Diagonalization | $1,3,5,7,9,11,13,15,17,19,27,29,31,33$ |
| 5.4 | Eigenvectors and Linear Transformations | $1,3,5,7,9,11,13,15,21,23,25,27$ |
| 5.5 | Complex Eigenvalues | 1, 3, 5, 13, 15, 29 |
| 6.1 | Inner Products | $3,5,7,9,11,13,15,17,21,22,27,33,35,37,38,39$ |
| 6.2 | Orthogonal Sets | $3,5,9,11,13,15,17,21,33,35,37,41$ |
| 6.3 | Orthogonal Projections | $3,5,7,9,11,13,15,19,31$ |
| 6.4 | The Gram-Schmidt Process | 1, 3, 5, 7, 9, 11, 26 |

