LECTURE SCHEDULE

- **Week 1: January 7-11**
  - **Lecture 1** - Introduction, 1.1 (Systems of Linear Equations)
  - **Lecture 2** - 1.2 (Gaussian Elimination)
  - **Lecture 3** - 1.3 (Matrices and Matrix Operations)
- **Week 2: January 14-18**
  - **Lecture 4** - 1.3 (continued), 1.4 (Inverses, Properties of Matrices)
  - **Lecture 5** - 1.4 (Inverses, Properties of Matrices, Continued)
  - **Lecture 6** - 1.5 (Elementary Matrices)
- **Week 3: January 21-25**
  - **Lecture 7** - 1.5 (Continued), 1.6 (More on Linear Systems and Invertible Matrices)
  - **Lecture 8** - 1.6 (Continued)
  - **Lecture 9** - 1.7 (Diagonal, Triangular, and Symmetric Matrices)
- **Week 4: January 28 - February 1**
  - **Lecture 10** - 2.1 (Determinants by Cofactor Expansion)
  - **Lecture 11** - 2.2 (Evaluating Determinants by Row Reduction)
  - **Lecture 12** - 2.3 (Properties of Determinants, Omit Cramer's Rule)
- **Week 5: February 4-8**
  - **Lecture 13** - 5.1 (Eigenvalues and Eigenvectors)
  - **Lecture 14** - 5.1 (Continued)
  - **Lecture 15** - 5.2 (Diagonalization)

- **Week 6: February 11-15**
  - **Lecture 16** - 5.2 (Continued)
  - **Lecture 17** - 5.4 (Differential Equations)
  - **Lecture 18** - 5.4 (Continued)
- **Week 7: February 18-22 (Midterm Recess)**
- **Week 8: February 25 - March 1**
  - **Lecture 19** - 10.1, 10.2 (from 9th Edition, Complex Numbers, Division of Complex Numbers)
  - **Lecture 20** - 10.3 (from 9th Edition, Polar Form of a Complex Number)
  - **Lecture 21** - 3.1 (Vectors in 2-space, 3-space, and *n*-space)
- **Week 9: March 4-8**
  - **Lecture 22** - 3.2 (Norm, Dot product, and Distance in R^n)
  - **Lecture 23** - 3.3, 3.4 (Orthogonality, The Geometry of Linear Systems)
  - **Lecture 24** - 3.4 (Continued), 3.5 (Cross Product)
- **Week 10: March 11-15**
  - **Lecture 25** - 4.1 (Real Vector Spaces)
  - **Lecture 26** - 4.1 (Continued), 4.2 (Subspaces)
  - **Lecture 27** - 4.2 (Continued)
- **Week 11: March 18-22**
  - **Lecture 28** - 4.3 (Linear Independence)
  - **Lecture 29** - 4.3 (Continued), 4.4 (Coordinates and Basis)
  - **Lecture 30** - 4.4 (Continued)
- **Week 12: March 25-29**

- **Lecture 31** - 6.3 (Gram-Schmidt Process, Omit Example 9 and QR-Decomposition)
- **Lecture 32** - 6.3 (Continued), 4.5 (Dimension)
- **Lecture 33** - 4.5 (Continued), 4.7 (Row Space, Column Space, and Null Space)

- **Week 13: April 1-5**
  - **Lecture 34** - 4.7 (Continued)
  - **Lecture 35** - 10.14 Cryptography
  - **Lecture 36** - 10.14 (Continued), Review

- **Week 14: April 8-9**
  - **Lecture 37** - Review
- (Clases end on April 9th)