## Schedule

Table 1: 2210 Class Schedule

| Date  | Sections  | Topics   |  |
|-------|-----------|--|--|
| 8/27  | 1.1-1.2   | Intro to Linear Algebra, systems of equations    |  |
| 8/29  | 1.3       | Vector equations                                 |  |
| 9/3   | 1.4 - 1.5 | Matrix equations; solution sets                  |  |
| 9/5   | 1.7       | Linear independence                              |  |
| 9/10  | 1.8 - 1.9 | Linear transformations and the associated matrix |  |
| 9/12  | 2.1       | Matrix operations                                |  |
| 9/17  | 2.2 - 2.3 | Inverses and invertible matrices                 |  |
| 9/19  | 3.1 - 3.2 | Determinants                                     |  |
| 9/24  | 3.3 - 4.1 | Cramer's Rule, Volumes; Vector Spaces and        |  |
| ·     |           | Subspaces  |  |
| 9/26  |           | Exam Review                                      |  |
| 10/1  |           | First Exam                                       |  |
| 10/3  |           | No class (Rosh Hashanah)                         |  |
| 10/8  | 4.2       | Null space, column space                         |  |
| 10/10 | 4.3 - 4.4 | Bases and linear independence; coordinates       |  |
| 10/15 | 4.5       | Dimension  |  |
| 10/17 | 4.6 - 4.7 | Rank, change of basis                            |  |
| 10/22 | 5.1       | Eigenvectors, eigenvalues                        |  |
| 10/24 | 5.2 - 5.3 | Characteristic polynomials, diagonalization      |  |
| 10/29 | 5.4       | Eigenvector and linear transformations           |  |
| 10/31 |           | Review   |  |
| 11/5  |           | Exam 2   |  |
| 11/7  | 6.1 - 6.2 | Inner products, orthogonality                    |  |
| 11/12 | 6.3       | Orthogonal Projection                            |  |
| 11/14 | 6.4 - 6.5 | Gram-Schmidt, least squares                      |  |
| 11/19 | 7.1       | Diagonalization of symmetric matrices            |  |
| 11/21 | 7.2 - 7.3 | Quadratic forms, constrained optimization        |  |

| Date       | Sections | Topics                       |                      |
|------------|----------|------------------------------|----------------------|
| 11/26-     |          | No Class; Thanksgiving break |                      |
| 11/28      |          |                              |                      |
| 12/3       |          | Singular Value Decomposition |                      |
| 12/5       |          | Review/Catch-up              |                      |
| 12/9-12/11 |          | Finals Period                | Final Exam           |
| , ,        |          |                              | $\operatorname{TBD}$ |
| 12/12      |          | Reading Day                  |                      |
| 12/13-     |          | Finals Period resumes        | Final Exam           |
| 12/15      |          |                              | TBD                  |