

**MATH 2076 (004) Linear Algebra - Tentative Course Schedule Spring 2026**

| <b>Week</b> | <b>Date</b> | <b>Tests/Holidays</b>  | <b>In Class</b>   |
|-------------|-------------|------------------------|---|
| 1           | 1/13 T      |                        | 1.1 Systems of Linear Equations   |
|             |             |                        | 1.2 Row Reduction and Echelon Forms   |
| 2           | 1/20 T      |                        | 1.3 Vector Equations<br>1.4 The Matrix Equation $Ax=b$                                |
|             | 1/22 Th     |                        | 1.5, 1.6 Solution Sets and Applications of Linear Systems                             |
| 3           | 1/27 T      |                        | 1.7 Linear Independence<br>1.8 Intro to Linear Transformations                        |
|             | 1/29 Th     |                        | 1.9 The Matrix of a Linear Transformation   |
| 4           | 2/3 T       |                        | 2.1 Matrix Operations<br>2.2 The Inverse of a Matrix                                  |
|             | 2/5 Th      |                        | 2.3 Characterizations of Invertible Matrices  |
| 5           | 2/10 T      |                        | 2.8 Subspaces of $\mathbb{R}^n$   |
|             | 2/12 Th     | <b>TEST 1: 1.1-2.3</b> |   |
| 6           | 2/17 T      |                        | 2.9 Dimension and Rank<br>3.1 Intro to Determinants                                   |
|             | 2/19 Th     |                        | 3.2 Properties of Determinants  |
| 7           | 2/24 T      |                        | 4.1 Vector Spaces and Subspaces<br>4.2 Null/Col/Row Spaces and Linear Transformations |
|             | 2/26 Th     |                        | 4.3 Linearly Independent Sets; Bases  |
| 8           | 3/3 T       |                        | 4.4 Coordinate Systems<br>4.5 The Dimension of a Vector Space                         |
|             | 3/5 Th      |                        | 4.6 Change of Basis   |
| 9           | 3/10 T      |                        | 5.1 Eigenvectors and Eigenvalues  |
|             | 3/12 Th     | <b>Test 2: 2.8-4.6</b> |   |
| 10          | 3/17 T      |                        | 5.2 The Characteristic Equation<br>5.3 Diagonalization                                |
|             | 3/19 Th     |                        | 5.4 Eigenvectors and Linear Transformations   |
| 11          | 3/24 T      |                        | 6.1 Inner Product, Length, and Orthogonality<br>6.2 Orthogonal Sets                   |
|             | 3/26 Th     |                        | 6.3 Orthogonal Projections  |
| 12          | 3/31 T      |                        | 6.4 The Gram-Schmidt Process<br>6.5 Least Squares Problems                            |
|             | 4/2 Th      |                        | 7.1 Diagonalization of Symmetric Matrices   |
|             | 4/7 T       | <b>Spring Break</b>    |   |
|             | 4/9 Th      |                        |   |
| 13          | 4/14 T      |                        | 7.2 Quadratic Forms   |
|             | 4/16 Th     | <b>Test 3: 5.1-7.1</b> |   |
| 14          | 4/21 T      |                        | Review for Final  |
|             | 4/23 Th     |                        |   |
| 15          |             | <b>Final Exam Week</b> | Final exam date, time, and location to be determined                                  |
|             |             |                        |   |