

SYLLABUS Math 3A; Fall 2018 Section D:

| lecture | date | section | topic |
|---------|------------|---------|--|
| 1 | Fri Sep 28 | 1.1 | Systems of Linear Equations |
| 2 | Mon Oct 1 | 1.2 | Row Reduction and Echelon Forms |
| 3 | Wed Oct 3 | 1.3 | Vector Equations |
| 4 | Fri Oct 5 | 1.4 | The Matrix Equation $Ax=b$ |
| 5 | Mon Oct 8 | 1.5 | Solution Sets of Linear Systems |
| 6 | Wed Oct 10 | 1.6 | Applications of Linear Systems |
| 7 | Fri Oct 12 | 1.7 | Linear Independence |
| 8 | Mon Oct 15 | 2.1 | Matrix Operations |
| 9 | Wed Oct 17 | 2.2 | The Inverse of a Matrix |
| 10 | Fri Oct 19 | 2.3 | Characterizations of Invertible Matrices |
| 11 | Mon Oct 22 | 2.6 | The Leontief Input-Output Model |
| 12 | Wed Oct 24 | 2.8 | Subspaces of \mathbb{R}^n |
| 13 | Fri Oct 26 | 2.9 | Dimension and Rank |
| 14 | Mon Oct 29 | 2.9 | Dimension and Rank |
| 15 | Fri Oct 31 | 3.1 | Introduction to Determinants |
| 16 | Mon Nov 2 | 3.2 | Properties of Determinants |
| 17 | Mon Nov 5 | | MIDTERM |
| 18 | Wed Nov 7 | 5.1 | Eigenvectors and Eigenvalues |
| 19 | Fri Nov 9 | 5.2 | The Characteristic Equation |
| - | Mon Nov 12 | | Memorial Day |
| 20 | Wed Nov 14 | 5.3 | Diagonalization |
| 21 | Fri Nov 16 | 5.5 | Complex Eigenvalues |
| 22 | Mon Nov 19 | 5.6 | Discrete Dynamical Systems |
| 23 | Wed Nov 21 | 5.6 | Discrete Dynamical Systems |
| - | Fri Nov 23 | | Thanksgiving Holiday |
| 24 | Mon Nov 26 | 6.1 | Inner product, Length, and Orthogonality |
| 25 | Wed Nov 28 | 6.2 | Orthogonal Sets |
| 26 | Fri Nov 30 | 6.3 | Orthogonal Projections |
| 27 | Mon Dec 3 | 6.3 | Orthogonal Projections |
| 28 | Wed Dec 5 | | Miscellaneous Topics |
| 29 | Fri Dec 7 | | Summary |
| - | Fri Dec 14 | | FINAL 1.30-3.30 pm |