## August

2022


SEPTEMBER
2022

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 1 | Vector Space <br> Dimension <br> Quiz: Span and <br> Linear <br> Independence | 3 |
| 4 | Labor Day 5 | Group Work: <br> Vector Spaces, <br> Bases, and <br> Dimension | Matrix Rank <br> Quiz: Vector Space <br> Dimension | 8 | Linear 9 <br> Transformations  <br> Quiz: Matrix Rank  | 10 |
| 11 | Kernels and Images 12 of Linear Transformations <br> Quiz: Linear Transformations | Group Work: Rank 13 \& Nullity of Linear Transformations | The Rank-Nullity 14 Theorem Quiz: Postponed | 15 | Composition and Inversion of Linear Transformations <br> Quiz: Kernels and Images of Linear Transformations | 17 |
| 18 | Matrices of Linear 19 Transformations <br> Quiz: the Rank-Nullity Theorem | Exam I Review 20 | Exam I Review <br> Quiz: Composition and Inversion of Linear <br> Transformations | 22 | Exam I Review <br> Quiz: Matrices of Linear <br> Transformations | 24 |
| 25 | Exam I Review 26 | Exam I 27 | Determinants of 28 $3 \times 3$ Matrices | 29 | The Adjugate of a 30 Matrix | 1 |

October
2022

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | Polynomials <br> Associated to Matrices <br> Quiz: Determinants of $3 \times 3$ Matrices | Group Work: 4 Determinants | Eigenvalues and Eigenvectors <br> Quiz: the Adjugate of a Matrix | 6 | Fall Break 7 | 8 |
| 9 | Eigenspaces $10$ <br> Quiz: Polynomials <br> Associated to Matrices | Group Work: the 11 <br> Characteristic and <br> Minimal <br> Polynomials | The Spectral Theorem Quiz: Eigenvalues and Eigenvectors | 13 | The Spectral 14 Theorem <br> Quiz: Eigenspaces | 15 |
| 16 | Nilpotent Matrices 17 | Group Work: <br> Eigenvalues, <br> Eigenvectors, and <br> Eigenspaces | The Smith Normal 19 Form of a Matrix <br> Quiz: the Spectral Theorem | 20 | The Rational 21 Canonical Form Quiz: Nilpotent Matrices | 22 |
| 23 | The Jordan 24 Canonical Form Quiz: the Smith Normal Form | Group Work: <br> Computing the Canonical Forms | Exam II Review 26 <br> Quiz: the Rational Canonical Form | 27 | Exam II Review 28 <br> Quiz: the Jordan Canonical Form | 29 |
| 30 | Exam II Review 31 |  |  |  |  |  |

## November

2022

| Sunday | MONDAY | Tuesday | Wednesday | Thursday | Friday | SATURDAY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Exam II 1 | Real $n$-Space 2 | 3 | The Dot Product 4 | 5 |
| 6 | Lines and Planes <br> Quiz: Real Vector Spaces | Group Work: <br> Geometry in Real $n$-Space | Inner Products $9$ <br> Quiz: the Dot Product | 10 | Orthogonal Bases 11 <br> and the  <br> Gram-Schmidt  <br> Process  <br> Quiz: Lines and  <br> Planes  | 12 |
| 13 | Linear Functionals 14 <br> Quiz: Inner <br> Products | Group Work: Inner 15 Products, Orthogonal Bases, and the Gram-Schmidt Process | Exam III Review 16 <br> Quiz: Orthogonal <br> Bases and the <br> Gram-Schmidt <br> Process | 17 | Exam III Review 18 <br> Quiz: Linear <br> Functionals | 19 |
| 20 | Exam III Review 21 | Exam III 22 | Thanksgiving Break 23 | 24 | Thanksgiving Break 25 | 26 |
| 27 | Final Exam Review: Matrices and Vector Spaces | Group Work: Final 29 Exam Review | Final Exam <br> Review: Canonical <br> Forms of Matrices |  |  |  |

## DECEMBER

2022

| Sunday | MONDAY | Tuesday | Wednesday | Thursday | Friday | Saturday |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 1 | Final Exam <br> Review: Inner <br> Product Spaces | 3 |
| 4 | Final Exam Week 5 | Final Exam Week 6 | Final Exam Week 7 | Final Exam <br> 1:00 to 4:00 PM | Final Exam Week 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 |

