**Tentative Linear Algebra 1st Quarter Schedule**

**2023--2024**

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| DAY # | DATE | TODAY’S TOPIC | Assignments |
| Week 1 | 7/17 | Teacher in-service |  |
|  | 7/18 | Teacher in-service |  |
|  | 7/19 | First day of school |  |
|  | 7/20 | Syllabus; Sign up for Teams/Notebooks/Textbooks/Reset passwords |  |
|  | 7/21 | 1.1 Intro to systems of linear equations | 1abc, 4b, 5b, 7c, 13, 19 |
| Week 2 | 7/24 | 1.2 Gaussian elimination | 3bc, 5, 9, 17, 23, 40 |
|  | 7/25 | 1.3 Matrices and matrix operations | 1, 3, 5a-d+f, 7bc, 11, 15 |
|  | 7/26-27 | Problems/Quiz 1.1-1.3 |  |
|  | 7/28 | 1.4 Inverses; algebraic properties of matrices | 1, 3, 5, 10, 15, 24, 25 |
| Week 3 | 7/31 | 1.5 Elementary matrices; method of *A*-1 | 1, 3, 5, 7, 13, 15 |
|  | 8/1 | 1.6 More on systems and how to do mathematical proofs | 1, 3, 9, 15 |
|  | 8/2-3 | Problems |  |
|  | 8/4 | 1.7 Diagonal, triangular, and invertible matrices | 5, 6, 17b, 22, 25, 41 |
| Week 4 | 8/7 | 1.8 Matrix transformations |  |
|  | 8/8 |  |  |
|  | 8/9—10 | Ch 1 Test |  |
|  | 8/11 | 2.1 Cofactor expansion | 1, 3a, 11, 15, 21, 25 |
| Week 5 | 8/14 | 2.2 Row reduction | 3, 7, 9, 15, 17, 23, 29 |
|  | 8/15 | 2.3 Determinant properties and Cramer’s rule | 1, 5, 7, 11, 15, 19, 25 |
|  | 8/16—17 | Problems |  |
|  | 8/18 | Chapter 2 Quiz |  |
| Week 6 | 8/21 | 3.1 Vectors in 2-, 3-, and *n*-space | 1, 5, 7, 9, 15, 17 |
|  | 8/22 | 3.2 Norm, dot product, and distance in *Rn* | 1, 3, 7, 9a, 11a, 13, 19 |
|  | 8/23—24 | 3.3 Orthogonality/Problems | 1, 3, 7, 9, 11, 13, 17, 21, 25 |
|  | 8/25 | 3.4 Geometry of linear systems | 1, 5, 9, 13, 15, 17 |
| Week 7 | 8/28 | 3.5 Cross product | 1, 7, 9, 11, 15, 17, 28 |
|  | 8/29 | Problems |  |
|  | 8/30—31 | Chapter 3 Test |  |
| Quiz 13.1 | 9/1 | 4.1 Real vector spaces | 1, 5, 7, 17, 28 |
| Week 8 | 9/4 | No School—Labor Day |  |
|  | 9/5 | 4.2 Subspaces | 1, 3, 77, 9, 11, 15, 17 |
|  | 9-6/7 | Problems |  |
|  | 9/8 | 4.3 Linear independence | 1, 3, 7, 9, 11, 17, 21 |
| Week 9 | 9/11 | 4.4 Coordinates and basis | 3, 5, 7, 11, 19 |
|  | 9/12 | Problems |  |
|  | 9/13—14 | Quiz 4.1—4.4 |  |
|  | 9/15 | 4.5 Dimension/problems | 1, 5, 7, 11, 13, 15, 19 |
| Week 10 | 9/18 | 4.6 Change of basis | 1, 3, 5, 9, 15, 19 |
|  | 9/19 | 4.7 Row, column, and null spaces | 3, 5, 7, 9, 11, 13 |
|  | 9/20--21 | Problems |  |
|  | 9/22 | 4.8 Rank, nullity, and fundamental matrix spaces | 1, 6, 9, 11, 13, 15, 17 |
| Week 11 | 9/25 | 4.9 Basic matrix transformations in *R*2and *R*3 | 3, 7, 11, 17, 21, 23 |
|  | 9/26 | 4.10 Properties of matrix transformations | 1, 7, 11, 17, 21, 23, 25 |
|  | 9/27-28 | Problems |  |
|  | 9/29 | Ch 4 Test |  |