MATH 150-10, Linear Algebra, Summer 2023

Instructor: Michael Raney
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Office: 310 St. Mary's Hall
Textbook: Lay, Lay and McDonald, *Linear Algebra and its Applications*, 6th edition, Pearson

Course overview: This course presents the basic theory and methods of finite dimensional vector spaces and linear transformations on them. Topics include: matrices and systems of linear equations; vector spaces, bases, and dimension; linear transformations, kernel, image, matrix representation, basis change, and rank; scalar products and orthogonality; determinants, inverse matrices; eigenvalues, eigenvectors, diagonalization of symmetric matrices, positive definite matrices, spectral theorem for Hermitian matrices; linear discrete dynamical systems via matrix iteration.

Homework: A homework assignment will be given over each section after it is covered in lecture. The assignments will be collected and graded. You are allowed and even encouraged to discuss the assignments with each other, but the work that you hand in must be your own.

Exams: We will have a midterm exam and a final exam. The midterm is scheduled for Wednesday, June 21 during regular class time. The final exam is scheduled for Friday, July 7 during regular class time.

Grading scheme: Your homework average constitutes 40% of your overall course average. The midterm exam is worth 30%, and the final is worth 30%.

Note: Classes will not meet in observance of Juneteenth (Monday, June 19) and in observance of Independence Day (Tuesday, July 4).