

MATH 3A SYLLABUS

INSTRUCTOR: NAM TRANG, RH 410N

OFFICE HOURS: M 3-4, W 12:30-2

OFFICIAL COURSE NOTES David C. Lay, Steven R. Lay, and Judi J. McDonald: Linear algebra and its applications, fifth edition.

CLASS OBJECTIVES This course is an introduction to linear algebra, a subject in mathematics that attempts to understand the general theory of linear systems. In this class, we will cover parts of Chapters 1-3, 5,6 of the textbook.

In the first half of the course, we will develop methods for solving systems of linear equations of the form $A\vec{x} = \vec{b}$ and its applications. Along the way, we will study the basic theory and applications of matrices and vectors. The midterm will cover roughly Chapters 1 and 2.

In the second half of the course, we extend and study the theory of matrices in more details. Topics include determinants, eigenvalues and eigenvectors, and inner products. We will give several applications of the theory developed above, including least squares problems and applications of orthogonality to solving certain linear systems. These topics constitute parts of Chapters 3, 5, and 6.

The final will be comprehensive but will emphasize the second half of the course.

EXAMS There will be one midterm and one final.

MIDTERM: October 31, 2016

FINAL: Friday Dec 9, 1:30-3:30 (see WEBSOC)

HOMEWORK + PARTICIPATION There will be roughly one homework per week. The homework + participation constitutes 20% of your grades and you are allowed to drop one lowest homework score. There will be about 7 homeworks due. So 6 homeworks will count for 12% of your grades and participation will count for 8% of your grades (I will explain in lectures how participation works).

FINAL GRADES

FINAL: 40% MIDTERM: 25% HOMEWORK + PARTICIPATION: 20% DISCUSSION: 15%

The letter grades will be based on a curve at the end after all grades have been recorded and finalized. The discussion grades are basically quiz grades. Quizzes are given in discussion roughly every week. You get to drop the lowest quiz score.

NO EXTRA CREDITS WILL BE GIVEN Everyone will be evaluated based on the same criteria.

EMERGENCIES No make-up exams will be given unless the instructor is provided with proper

documentation.

ACADEMIC INTEGRITY This class follows strictly UCI's rules and policies on academic honesty and integrity. Please follow the link on the class webpage and read the policies carefully. You are expected to be fully aware of consequences of violating the codes.