Math 33A, Linear Algebra and Applications
Fall 2013
Course Information

Class Hours: MWF, 12–1pm, HUMANTS A51.
Instructor: Mario Bonk
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Phone: (310) 825-4948
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Office hours: Tu, 2–3pm; We, 3pm–4pm; Th, 2–3pm; and by appointment.
Course web-site: http://www.math.ucla.edu/~mbonk/33a.3.13f/
Textbook: O. Bretscher, Linear Algebra with Applications, 5th ed.

Grading: There will be weekly homework, two midterms, and a final exam. This will be weighted towards the course grade as follows:
   Homework: 30%
   Two Midterms: 15% each
   Final: 40%

For passing the course it is necessary to turn in homework regularly. Homework will usually be due on Fridays before class. No late homework will be accepted. Failure to turn in three homework assignments will automatically result in a failing grade.

First midterm: Fr, Oct. 18, 2013, in class.
Second midterm: Fr, Nov. 15, 2013, in class.
Final exam: Mo, Dec. 9, 2013, 11:30am–2:30pm.

Course topics: Systems of linear equations, Gauss-Jordan elimination, linear transformations, matrix algebra, inverse matrices, subspaces of \( \mathbb{R}^n \), linear independence, bases, dimension, kernel and image of linear transformations, coordinates, orthogonality, orthonormal bases, orthogonal projections, orthogonal transformations and matrices, Gram-Schmidt process, QR-factorization, least squares methods, determinants, eigenvalues and eigenvectors, diagonalization of matrices, symmetric matrices, singular-value decomposition.