

Math 22-61 Linear Algebra 1447, Winter, 2010

Instructor: Dr. Karl Schaffer
Class meeting days: Tue./Thu.
Class time 6:30-8:45 PM
Classroom: E-31
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Office: E-23A
Office Hrs: : Mon/Wed/ 5:30-6:20 PM, Tue/Thu 12:30-1:20 PM
or by appointment

De Anza class web site: <http://nebula2.deanza.edu/~karl/>

Course content: Linear algebra and selected topics of mathematical analysis. This class will cover the traditional topics of linear algebra: linear transformations, matrices, vectors and vector spaces, eigenvalues and eigenvectors, linear systems of equations, determinants, and applications.

You should have a graphing calculator - you may use it on all exams and quizzes. I recommend the TI-86 or one of the newer TI's, as they are also used in other math classes on this campus. They can be purchased at the bookstore.

Text: *Linear Algebra through Geometry*, by Thomas Banchoff and John Wermer, Springer, 2nd edition. Additional materials will be available on class web site or handed out. Also recommended is the *Schaum's Outline Linear Algebra* by Lipschutz, as well as the free online text by Jim Hefferon.

We will cover chapters 1-8 and other material which will be announced. Assignments will also be recorded at the class web site above.

Grades: 90-100 A, 80-89 B, 70-79 C, 60-69 D, < 60 F, based on:

20% Several short quizzes, writing assignments, or in-class assignments, usually to be given during class. These will often involve group work. You may drop your lowest score. These assignments will together constitute one exam. An individual or group project at the end of the quarter will count as two quizzes.

Exams:

You will need a scantron form (brown, half-page) for the following:

- 10%: 30 minute exam, Mon., Apr. 19 (Individual)
- 10%: 30 minute exam, Wed., May 5 (Collaborative)
- 10%: 30 minute exam, Mon., May 24 (Individual)
- 10%: 30 minute exam, Wed., Jun 9 (Collaborative)

20% Homework assignments. Homework is assigned during each class and must be kept in a looseleaf binder. Your homework may be checked periodically (usually during exams), and some assignments may be collected for grading. Homework is graded for completion, not correctness. NO LATE HOMEWORK ACCEPTED. EVER!

20% Final Exam: mandatory, comprehensive, given on Wed., June 23, 6:15-8:15 PM. There will be no make-ups or early exams. The final exam score will be used to replace lowest of the earlier exams, if and only if final is higher.

NO LATE WORK IS ACCEPTED - NO MAKE-UPS. IF YOU MUST MISS ONE MAJOR EXAM, IT WILL BE REPLACED WITH THE FINAL EXAM SCORE, BUT THIS IS NOT A GOOD IDEA! HOMEWORK ASSIGNMENTS MAY BE CHECKED AT ANY TIME, SO KEEP YOUR WORK CURRENT!

Some background on the instructor: Ph.D. and MA in Mathematics from UC Santa Cruz, undergraduate work at University of Chicago and University of Alabama. Grew up in New England and Alabama. Do research in the mathematics of "networks," (graph theory) and am very active in math education for K-12. I am interested in and will use collaborative learning and interdisciplinary learning techniques in the class. I am also a modern dance performer and choreographer, and company I co-direct does shows about math and dance, among other things see <http://www.mathdance.org/>, or <http://www.schafferstern.org/>