CRN: 01501 Math 002B-61 Linear Algebra, Fall, 2015

Instructor: Dr. Karl Schaffer
Class meeting days: Mon/Wed.
Class time 6:30-8:45 PM
Classroom: E-36
email: schafferkarl@fhda.edu

Office phone: 408-864-8214
Office: E-23A
Office Hrs: : **Mon/Wed/ 5:30-6:20 PM, Tue/Thu 12:30-1:20 PM**
          or by appointment
Class web site: http://nebula2.deanza.edu/~karl/
Class login name: mathstudent   **password**: 1234 (to be changed!)

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.

Student Learning Outcomes:
1. Construct and evaluate linear systems/models to solve application problems.
2. Solve problems by deciding upon and applying appropriate algorithms/concepts from linear algebra.
3. Apply theoretical principles of linear algebra to define properties of linear transformations, matrices and vector spaces.

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. You may NOT use a computer or cell phone or any electronic device with communication capability during classes or exams; this rule will be strictly enforced!! No emailing, texting, messaging, tweeting, facebooking, youtubing or bitcoining, or anythinging!!

Text: The text is Introduction to Linear Algebra, 3rd edition, by Gilbert Strang, Wellesley-Cambridge Press. Additional materials will be available on class web site or handed out. Also recommended is *Schaum's Outline Linear Algebra* by Lipschutz. You may not use an electronic form of the text during class, as **wifi capable devices are not allowed during class time.** We will cover chapters 1-9, with some omissions; some other material will also be provided.

Homework: Homework sections will be posted at class web site above.

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

5% Attendance: You may miss 3 classes without it affecting your grade. Each additional class missed counts %1/2. Leaving more than 20 minutes early or arriving more than 20 minutes late counts as a half-absence.

12.5% Several short quizzes or in-class assignments, usually to be given during class. These will often involve group work. You may drop your lowest score. An individual or group project may be assigned at the end of the quarter and may count as two quizzes.

7.5% Video lecture response forms. Short, simple questions, to make sure you're watching the textbook author Strang's videos! These will be assigned according to what we are covering.

Exams:
You will need a scantron form (half-page) for the final exam and the following:
15%: one hour exam, Mon., Oct. 5
15%: one hour exam, Wed., Oct. 21
15%: one hour exam, Wed., Nov. 11

15% Homework assignments. Homework is assigned during each class and should probably be kept in a loose leaf binder. Your homework will be turned in **ONLY** at the end of each chapter. Homework is graded for completion, not correctness. **NO LATE HOMEWORK ACCEPTED. EVER**! Do not turn in your entire homework notebook. You may miss one homework assignment and still receive full credit.

15% Final Exam: mandatory, comprehensive, given on **Wed., Dec. 9, 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 exam 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! IF YOU GET BEHIND DO THE MOST RECENT WORK FIRST, KEEP YOUR WORK CURRENT!

Some background on the instructor: Ph.D. and MA in Mathematics from UC Santa Cruz, undergraduate work at Univ. of Chicago and Univ. of Alabama. Grew up in New England and Alabama. Do research in the mathematics of "networks," (graph theory) and am active in math education. Am interested in and use 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/.