Classroom:	Tues & Thur 5:30-6:50 pm in PKH 319
Contact Info:	PKH 462, 817-272-3932, vancliff@uta.edu
Web:	http://www.uta.edu/math/vancliff/T/F11
Office Hours:	Tues & Thur 4:00-5:15 pm in PKH 462, or by appointment
Textbook:	Linear Algebra Done Right, by S. Axler, 2nd Ed. Springer Publishing Co. (required)
Prerequisite:	A, B or C in Math 3330 or equivalent
Tests:	• three **20-minute tests** on Thurs Sept 22, Tues Nov 1, Tues Nov 22; • one 75-minute **Midterm** on Thurs Oct 13; • one comprehensive **Final** Examination on Tues Dec 13, 5:30-8:00 pm. Bring photo ID to all tests. Make a note of these dates NOW.
Weighting:	Test 1 = 10%, Test 2 = 15%, Test 3 = 15%, Midterm = 25%, Final Examination = 35%. Each test will be curved separately and its grade (not score) will contribute to your course grade. Good attendance & participation will help your course grade if your grade is borderline.
Note:	any student not obtaining a positive score on the Final examination will not pass this class.
Important Dates:	Sept 5 = Labor Day (holiday) Mon Sept 12 = Census date Tests (see above): Sep 22, Oct 13, Nov 1, Nov 22, Dec 13 Fri Nov 4 = official last day to drop (with W) Nov 24-27 = Thanksgiving Holiday Thurs Dec 8 = last day of class.

CALCULATORS

No calculator is allowed on any test, so it is best not to use one on the homework.

COURSE CONTENT & LEARNING OUTCOMES

The course prerequisite is undergraduate linear algebra, so I will assume you have **mastered** the concepts from that course. The goal of this course is to teach you those same concepts and more, but with greater depth, with mathematical formalism and with rigor. We will cover most of the book. The topics will include vector spaces and subspaces, bases, linear (in)dependence, inner product on a vector space, orthogonality, linear transformations between vector spaces, invariant subspaces of a linear transformation and eigenvalues and eigenvectors, Jordan normal form, quadratic forms, dual spaces.

Expected Learning Outcomes: upon completion of this course, for any of the topics listed above, you should be able to: 1. write the definition of many of the terms; 2. solve problems; 3. construct correct and detailed mathematical arguments to justify your claimed statements.

HELP OUTSIDE CLASS TIME

Feel free to ask me relevant questions during class, after class and in office hours. You can also e-mail me your questions, or ask me to look over your solution to a homework problem. My office hours are times I am planning to be in my office where you can drop by without an appointment to ask me questions.

My web page (given above) will list the homework as the semester progresses as well as other miscellaneous information pertinant to this course; you are advised to check it every couple of days.

HOW TO DO WELL IN THIS COURSE

You are expected to spend *at least* 6 hours/week on this course outside class time. The best way to guarantee a good grade in this course is to take good lecture notes and to read them over after class, and to do ALL the assignments on a regular basis (this is your *brain exercise*!) and to discuss the material with each other. After completing any one assignment, put together a list of the ideas you have learned in doing that assignment; keep your list as help when you study for the tests.

There will be a lot of homework assigned, none of which will be officially graded. Some reading will also be assigned, due to the amount of material that we need to cover. It is very important that you know how to work out the homework problems correctly. At least half of each test will be based on homework problems. Without a good understanding of the material in this class, you will have trouble with your future studies in mathematics, statistics, computer science and engineering; this course is a stepping stone for all other graduate-level science-based classes.

DISABILITY ACCOMMODATIONS

The University of Texas at Arlington is on record as being committed to both the spirit and letter of federal equal opportunity legislation; reference Public Law 93112 — The Rehabilitation Act of 1973 as amended. With the passage of the Americans with Disabilities Act (ADA), pursuant to Section 504 of the Rehabilitation Act, there is renewed focus on providing this portion of the population with the same opportunities enjoyed by all US citizens. In particular, students in this situation who desire accommodation should **notify me informally this week**, and notify the Disabilities Office as soon as possible with official authorized documentation; the Disabilities Office will give you documentation that will authorize me to provide accommodation and inform me of the nature of the accommodation.

CONFLICT WITH EXAMINATION DATES

Students who miss tests due to UNauthorized reasons will NOT be accommodated.

If you have a conflict with a test, or if you miss a test, you should contact me as soon as possible (in person, by e-mail, or by phone (leave a message on my answering machine (NOT with the math office) if I am not there)). If you miss any test for an authorized reason which can be verified with official documentation (e.g., hospitalization), then accommodations will be offered (no make-up tests). Any student not earning a positive score on the Final examination for this class will not pass this class.

DROP POLICY

The last day this semester to drop a course is Friday Nov 4 at 5 pm. Any student who drops the course on or before Nov 4 will receive a W. **Students must contact an advisor in their major in order to drop a course,** and I recommend those interested in this should see their advisor at least a few days before Nov 4 to allow time to obtain necessary signatures.

TUITION NONPAYMENT

If you are dropped from this class for non-payment of tuition, you may secure an Enrollment Loan through the Bursar's Office.

GRADE–REPLACEMENT & GRADE EXCLUSION POLICIES

These policies and deadline dates are described in detail in the University catalog and can also be found online at http://www3.uta.edu/registrar/gradeExclusion.asp and at http://www3.uta.edu/registrar/grade_replacement.asp .

DISTRACTION IN THE 21ST CENTURY!!

Cellular phones should be SWITCHED OFF during all classes & all tests. Cellular-phone use is not permitted in class. If you NEED to use your cellular phone for an URGENT reason during class, you may leave the room to talk & return to class when you are done. If you leave class for a nonurgent reason, the students & I prefer that you do not return, & I will subtract your name from the attendance sheet. During tests, your cellular phone should be out of sight. If you need to use your cellular phone for any reason during a test, then you may leave the room to talk, but **you will not be able to continue the test**.

The University reserves the right to impose disciplinary action for any kind of infraction of University policies. Engagement in conduct which disrupts, obstructs or interferes with activities authorized by the University will result in disciplinary action against the perpetrator(s). Such action includes leaving and/or entering the room during class.

SCHOLARLY INTEGRITY

It is the philosophy of The University of Texas at Arlington that academic dishonesty is a completely unacceptable mode of conduct and will not be tolerated in any form. All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures. Discipline includes suspension or expulsion from the University and a grade of FAIL in the class given to involved student(s). Part One, Chapter VI, Section 3, Subsection 3.2, Subdivision 3.22 of the Regents' Rules and Regulations states the following. "Scholastic dishonesty includes, but is not limited to, cheating, plagiarism, collusion, the submission for credit of any work or material that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts".

Photo-ID is REQUIRED at all tests. The University has informed all its faculty that steps should be taken to discourage cheating on tests. As such I will uphold the following during the tests:

- if you wish to leave the room during a test, you should ask permission first and turn in your test to me — only in exceptional circumstances will I let you continue the test should you return (so it is better to be 3 minutes late to the test, rather than ask to go to the restroom during the test);
- if you finish a test early but prefer to stay in the room, then you should NOT get out any work, book nor item, no matter what the subject matter is.

Remember, in any test, keep your eyes on your own work only.