Math 232 – Applied Linear Algebra Section D200, Fall 2009

 $m W~1:30-2:20~PM,~F~12:30-2:20~PM \ Surrey~room~5100$

Instructor: Tamon Stephen

Office: 14-265 Central City Tower

Office Phone: 778–782–7429 E-mail: tamon@sfu.ca

Office Hours: 2:30-3:30 W and 10:30-11:30 Th. (Tentative)

Held in Yosef Wosk Student Learning Centre, room 3695.

1. **Syllabus.** This is an introductory applied linear algebra course. We will follow the text fairly closely, covering most of Chapters 1, 2 and 3, and the first halves of Chapters 5 and 6.

Topics covered will include: Linear equations, matrices, determinants. Introduction to vector spaces and linear transformations and bases. Inner products and orthogonality. Eigenvalues and eigenvectors; diagonalization. Complex numbers. Least squares problems. Applications.

The course emphasizes matrix and vector calculations and applications.

2. **Grading.** Your course grade will be based on homework and three tests:

First Midterm Test: 20% Second Midterm Test: 20% Final Exam: 50% Homework: 10%

3. **Homework.** Homework will be posted on the course Website and is due in class weekly on Fridays (except on test weeks). If you cannot make it to class, you can put it in the drop box near the escalators. Late homework will not be accepted, but your lowest homework score will be dropped in calculating your grade. Assignments will not be accepted by e-mail.

You are encouraged to talk with each other, the teaching assistants and the instructor about the homework, but you must write up the solutions yourself, using your own words.

4. **Exams.** Books, notes and calculators cannot be used on these tests. Students **must** plan to take the tests at their scheduled times.

The tentative dates and times for the tests are:

Wednesday, October 7th, 1:30-2:20 PM Wednesday, November 4th, 1:30-2:20 PM Friday, December 11th, 8:30-11:30 AM

- 5. **Religious Holidays.** Students requesting religious accommodation must tell the instructor by the end of the first week of term.
- 6. **Text.** Linear Algebra and its Applications Third Edition (Update) by David C. Lay.
- 7. **Reading.** There will be assigned reading. Please do it.
- 8. **Reserve Books.** There is a copy of the course text on reserve at the SFU Surrey library. Additionally, there are Leon's *Linear Algebra with Applications* and Strang's *Introduction to Linear Algebra*. Both textbooks cover the same material as Lay, but the presentation is slightly different.
- 9. **Study Guide.** Inside the back of your textbook, you should find a CD which includes a copy of the student *Study Guide*. This contains detailed solutions to the odd-numbered problems.
- 10. Materials on the Web. Course information will be posted on the Math 232 WebCT page, to which you should have access during the term. See: http://webct.sfu.ca. Some basic course information will also be available on a public Web page: http://www.math.sfu.ca/~tstephen/Teaching/1097_Math232/
- 11. **Drop Dates.** The drop date for students to avoid getting a WD on their transcript is **Monday**, **September 14th**. The final drop date for students is **Tuesday**, **October 13th**. SFU maintains a list of important deadlines for students at: http://students.sfu.ca/deadlines/.
- 12. Questions. Questions are encouraged in class and out.
- 13. Office hours. All office hours will be held in the Open Lab (OL). See below.
- 14. **Open Lab.** Teaching assistants will be available to help you in the Open Lab (OL). This is also where I will hold my office hours. The OL is located in the Yosef Wosk Student Learning Commons (YWSLC), Room 3695 (next to the library). The Open Labs will begin in the second week of classes (week of Sept. 14th). A schedule of instructors and TA office hours will be posted at the lab and on WebCT.

The Open Lab is an excellent place for seeking help.

15. Math 240. A more theoretical linear algebra course covering similar material is Math 240, which is offered in the Spring and Summer (in Burnaby). Note that students with credit for Math 232 cannot take Math 240 for further credit.

Have a great term!