Linear Algebra (MATH 2753) Spring 2006

Professor: Paul Bailey

Office: WIL 228

Office Hours: MTWRF 10 am to 11 am; MWF 1 pm to 2 pm

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Book: Linear Algebra, A Geometric Approach, by Shifrin and Adams

Grade Components

 $\begin{array}{ccc} \textbf{Problems:} & 25\% \\ \textbf{Quizzes:} & 25\% \\ \textbf{Midterms:} & 25\% \\ \textbf{Final:} & 25\% \end{array}$

Homework exercises from the textbook will be assigned daily to be completed before the next class. These will not be collected, but they need to be done in a timely fashion to keep up with the course.

Occasional challenge problems will be handed out, to be thought about and completed outside of class. Mathematics should be written neatly, and *in complete sentences*.

There will be a quiz almost every Friday. No makeup quizzes will be given. Instead, optional extra credit worksheets will be posted on the web site. These worksheets will replace lower or vacant quiz grades.

There will be two midterm examinations and one final examination. The final examination has been scheduled by the university for Wednesday, May 10, 2006, at 3:10 p.m.

Calculators can be detrimental to the study of mathematics. The use of calculators, cell phones, laptop computers, and all electronic devices is strictly prohibited during quizzes and examinations, and is discouraged while studying.

Course Outline

Week	Beginning	Topic	Section
Week 1	Jan 23	Vectors	1.1,1.2
Week 2	Jan 30	Hyperplanes	1.3
Week 3	Feb 6	Linear Equations	1.4,1.5
Week 4	Feb 13	Matrices	2.1-2.3
Week 5	Feb 20	Subspaces	3.1
Week 6	Feb 27	Dimension	3.2,3.3
Week 7	Mar 6	Fundamental Subspaces	3.4
Week 8	Mar 13	Vector Spaces	3.6
Week 9	Mar 20	SPRING BREAK	
Week 10	Mar 27	Inner Products	4.1,4.2
Week 11	Apr 3	Linear Transformations	4.3,4.4
Week 12	Apr 10	Determinants	5.1,5.2
Week 13	Apr 17	Eigenvectors	6.1
Week 14	Apr 24	Diagonalizability	6.2
Week 15	May 1	Spectral Theorem	6.4