Linear Algebra
(MATH 2753)
Spring 2007

Professor: Dr. Paul Bailey

Office: WIL 228

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

Web Site: http://www.saumag.edu/pbailey

Email: plbailey@saumag.edu

Book: *Linear Algebra and Matrix Theory*, Gilbert & Gilbert, 2nd edition

Grade Components

Problems:	25%
Quizzes:	25%
Midterms:	25%
Final:	25%

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. Questions regarding the homework will be addressed at the beginning of the next lecture.

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 *unless arrangements are made before the day of the quiz*.

There will be two midterm examinations and one final examination. The final examination has been scheduled by the university for Wednesday, May 9, 2007, 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. You may use an abacus.

Course Outline

Week	Beginning	Topic	Sections
Week 0	Jan 17	Sets and Functions	Notes
Week 1	Jan 22	Vectors in $\mathbb{R}^2$ and $\mathbb{R}^3$	Notes
Week 2	Jan 29	Lines and Planes	Notes
Week 3	Feb 5	Vectors Spaces in $\mathbb{R}^n$	1.1,1.2,1.3
Week 4	Feb 12	Bases and Dimension	1.4,1.5,1.6
Week 5	Feb 19	Elementary Operations	2.1,2.2,2.3
Week 6	Feb 26	Matrices	3.1,3.2,3.3,3.4,3.5
Week 7	Mar 5	Matrix Equivalent	3.6,3.7,3.8
Week 8	Mar 12	Vector Spaces	4.1,4.2,4.3,4.4
Week 9	Mar 19	Linear Equations	4.5,4.6,4.7
Week 10	Mar 26	SPRING BREAK	
Week 11	Apr 2	Linear Transformations	5.1,5.2
Week 12	Apr 9	Change of Basis	5.3,5.4
Week 13	Apr 16	Determinants	6.1,6.2,6.3,6.4
Week 14	Apr 23	Eigenvectors	7.1,7.2
Week 15	Apr 30	Diagonalization	7.3