Syllabus
Linear Algebra
Math 261, Section 1, 29234
Spring 2009

Instructor:	Eric Gottlieb
Meetings:	MWF 8:00 – 8:50 in 225 Ohlendorf
Text:	*Linear Algebra: A Geometric Approach,* by Shifrin and Adams
Office:	317 Ohlendorf
Office Hours:	M – F 1:00 – 2:00
email:	gottlieb@rhodes.edu

Course description and scope: Linear algebra is a subject of great theoretical and practical importance. It has been aptly described as the workhorse of mathematics. It is used in many branches of mathematics, including analysis, algebra, combinatorics, and geometry. It also has applications to biology, physics, economics, computer science, and other disciplines. We will focus on the theoretical aspects of the subject, though if time permits, we may explore one or more special topics such as the singular value decomposition, linear programming, or an application to biology or physics.

We will cover all or most of Chapters 1 through 6 of your text. I may skip some sections or ask you to read them on your own in order to ensure that we have adequate time to cover certain important topics that occur towards the end of the semester.

Some of the main themes we will discuss include vectors, matrices, systems of linear equations and Gauss-Jordan elimination, matrix algebra, the notion of dimension, the connection between matrices and an important class of functions called linear transformations, determinants, eigenvalues and eigenvectors, and an important operation called diagonalization that can sometimes be performed on matrices.

Homework will be assigned and collected regularly. I strongly encourage you to visit me during office hours to discuss problems that gave you difficulty. When time permits, I will take homework questions in class. You may discuss homework questions among yourselves, but you must understand and independently write the work you turn in. Late homework assignments may be declined or penalized at my discretion.

Exams: There will be two in-class midterm exams and a comprehensive final exam, scheduled as shown below. Each exam will include a take-home portion which may be time-limited. You are not to discuss the take-home portion of your exams with anyone but me. The dates of the exams are firm but the material to be covered depends on our pace.

Exam	Date	Material to be covered (tentative)
1	Wednesday 18 February	Chapters 1 and 2
2	Friday 3 April	Chapters 3 and 4
Final	Saturday 9 May at 5:30 PM in 225 Ohlendorf	Comprehensive, with extra emphasis on chapters not covered on earlier exams

Calculators are not permitted on exams.

How I grade: The score you receive is based on my assessment of your understanding, which is determined by the work you show. Therefore, simply producing the right answer does not guarantee a good score. Full credit will be granted when you show all of your work, you get the right answer, and I can read and understand what you have written.

Your final grade is determined as follows:

Midterm Exams:	24% each
Homework:	24%
Final Exam:	28%

The letter equivalent of your number grade is determined as follows:

93-100	90-92	87-89	83-86	80-82	77-79	73-76	70-72	67-69	63-66	60-62	<59
A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F

The Honor Code: I take the Rhodes Honor Code seriously and I expect you to do the same. All graded work must comply with the Honor Code.