Syllabus
Linear Algebra
Math 261, Section 1, 23420
Spring 2013

Instructor:	Eric Gottlieb
Meetings:	MWF 1:00 – 1:50 in 225 Ohlendorf
Text:	*Elementary Linear Algebra, 10th ed.,* by Anton and Rorres
Office:	317 Ohlendorf
Office Hours:	MTW 2:00 – 3:00, R 9:00 – 11:00
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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 most of Chapters 1 through 6 and of Chapter 8 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 systems of linear equations and Gauss-Jordan elimination, vectors, matrices and 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.

Exams: There will be three in-class midterm exams and a comprehensive final exam, scheduled as shown below. Each exam may 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	Monday 4 February	Chapters 1 and 2
2	Wednesday 27 February	Chapter 3 and Sections 4.1 – 4.4
3	Monday 8 April	Sections 4.5 – 4.10, Chapters 5 and 6

If you know you will miss an exam, notify me in advance. I am more sympathetic to requests to take an exam early than I am to requests to take it late. In either case, you must provide a compelling and documented reason for missing the exam.

The final exam will be comprehensive with added emphasis on the material not covered on any midterm. It will be held at 5:30 PM on Monday 29 April in 225 Ohlendorf. You also have the option to take the final one of my other classes (5:30 PM on Tuesday 30 April, 1:00 PM on Wednesday 1 May, or 1:00 PM on Friday 3 May) but in order to do this, you must email me with a request and receive my permission in response.

Calculators are not permitted on exams.

Homework will be assigned and collected regularly, about once per week. I strongly encourage you to visit me during office hours to discuss problems that gave you difficulty. 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. When time permits, I will take homework questions in class.

How I grade: The score you receive on graded work 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 score is determined according to the following weighted average.

Midterm Exams:	19% each
Homework:	19%
Final Exam:	24%

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. I reserve the right to give no credit for any assignment on which the Honor Council finds that a violation of the Honor Code has occurred.