Math 4133 - Linear Algebra Spring 2013

COURSE INFORMATION	Location:	MTH 215
	Class Times:	MWF 12:00-12:50
	Instructor:	Dr. Karl Frinkle
	Office:	MTH 112
	Office Hours:	MW $13:00-14:30$, TR $11:00-14:00$
	Office Phone:	(580)745-2028
	E-mail:	kfrinkle@se.edu
	Website:	http://carmine.se.edu/kfrinkle

TEXT

Linear Algebra with Mathematica, by Kenneth Shiskowski and Karl Frinkle, ISBN # 978-0-470-63795-1

SOFTWARE

A requirement for this course is *Mathematica*. The computer lab in the Mathematics building has *Mathematica* installed on it. If you wish to purchase *Mathematica* for your own personal machine, a student version is available at a reasonable price.

COURSE OBJECTIVES

This course will introduce the student to the fundamentals of linear algebra, its applications and some of the computational aspects of the subject. We will cover such topics as linear systems, Gauss-Jordan elimination, determinants, inverses, basic vector spaces, applications to geometry and much, much, more.

COURSE OUTLINE

There will be reading assignments each day, you may be quizzed on what you are to have read for any given class. Please refer to the *schedule.pdf* for an outline of what we will cover.

Many days, the instructor will lecture, however, in addition to standard lectures, we will attempt to get familiar with *Mathematica* in the classroom. Some classes will be dealing strictly with *Mathematica* and how it can be used in regards to linear algebra. Many problems will not be easily solvable by hand, and computer algebra systems such as *Mathematica* will play an important part in approaching these problems. Programming with *Mathematica* will also be an important part of this course, and may even be part of your homework assignments, which are to be handed in on a regular basis.

Unlike many course you have taken, there is yet another component to this class. At various points throughout the semester, you, the student, will be required to present material from chapters and/or section which the instructor is not planning on covering. If you find a particular area of linear algebra fascinating, and wish to go beyond the bounds of the textbook, you are also welcome to give presentations on this as well. Expect to give at least three presentations over the course of the semester.

Lastly, there will be a cumulative, in-class final exam during the regularly scheduled time, which is Monday, May 6th from 14:00-16:00.

GRADES

Your final grade will be based upon the following items
- 25% - Homework - required to be handed in on a regular basis
- 25% - Quizzes - given regularly
- 25% - Projects and presentations - involving a advanced topics (not necessarily from the book) and *Mathematica*
- 15% - Final Exam - exam covering all of the material from the semester
- 10% - Class participation - interaction during class, and in projects/presentations

POLICIES   You will not be able to make up a quiz or receive credit for any other assignment which you missed the deadline for unless you notify me ahead of time. Given prior notification of an absence, I will ensure that you can take the quiz or hand in your homework at a more convenient time.

Cheating will not be tolerated in any shape or form. If you are caught cheating, it will be reported to the appropriate academic offices, and appropriate action will be pursued and you will fail the course.

All cell phones, pagers, CD players, and other electronic devices must be turned off and put away before class begins. If you are caught using a cell phone or any other electronic device during class, your final grade will be dropped by **one letter grade per incident**. The only exception to this rule is when we use *Mathematica* in class. In this instance, you will be allowed to use laptops in class. It is also expected that everyone will behave in a kind and courteous manner towards fellow students and the instructor.

I reserve the right to change any policies as I see fit to ensure that you are indeed receiving the best possible education that I can give you in the subject matter at hand. If I feel a certain aspect of the course does not appear to be effective in its method, I will attempt to change it (for the better I hope). All changes will be made in writing.

IMPORTANT DATES
FOR SPRING 2013

- 2013.01.14 - Classes begin
- 2013.01.16 - Last day to enroll in or add classes
- 2013.01.18 - Last day to drop a class with no grade record
- 2013.01.18 - Last day to drop a class with refund/no charges
- 2013.03.08 - Last day to drop a class with automatic W
- 2013.04.01 - Last day to complete final application for graduation
- 2013.04.26 - Last day to drop a class
- 2013.05.13 - Classes end

SPECIAL
ACCOMMODATIONS   Any student needing special accommodations due to a disability should contact the Coordinator of Student Disability Services, Student Union, Suite 204 or call (580) 745−2254 (TDD# 745−2704). It is the responsibility of each student to make an official request for accommodations to the Coordinator. For additional information, see the Americans with Disability Act on the Southeastern Online Learning website or http://www.se.edu/ada/

AT-RISK STUDENTS   Any student experiencing mental or emotional issues who desires free, confidential, clinical counseling is encouraged to contact the SE Counseling Center at (580) 745-2988 to schedule an appointment during normal working hours Monday Friday, 8:00 AM to 5:00 PM. For after hours mental health emergencies, please call SE Campus Police at (580) 745-2911 or the Mental Health Crisis Hotline at 1-(800) 522-1090.