## Math 113 - Elementary Mathematical Modeling - Fall 2009

**Instructor:** Dr. Marc Ordower

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Office hours: Monday 2:15 - 3:15

Tuesday 10:40 - 11:50, 2:15 - 3:15

Wednesday 2:15 - 3:15

Thursday 10:40 - 11:50, 2:15 - 3:15

and by appointment

Text: Functions and Change, Third Edition, by Crauder, Evans and Noell

Catalog Description: This course explores mathematical models of natural phenomena such as population growth and radioactive decay. Analysis of data using computer technology. Linear, quadratic, general polynomial, exponential, and logarithmic models will be discussed.

Course Objectives: The student will develop facility in using mathematics to describe and understand the world around us. Computational skills will be sharpened, and she will learn to use a computer algebra system appropriately.

**Help:** I urge you to ask questions in class. In so doing, you will help yourself and your classmates. I also hope to see many of you at office hours over the course of the term. Don't forget that you can make an appointment if you can't make my regularly scheduled office hours.

Further help can be arranged through the Ethyl Center.

Web Page: Homework assignments, review sheets, and general course information will be posted on my web site at

http://faculty.randolphcollege.edu/mordower/math113/math113.html

**Grading:** Your grade will be determined according to the following scheme.

Midterm I	Midterm II	Midterm III	Homework	Final Exam
18%	18 %	18%	21%	25%

Midterms: The tentative dates for the midterm exams are as follows:

Midterm Exam I - Friday, October 2 Midterm Exam II - Wednesday, November 4 Midterm Exam III - Friday, December 4

Homework: Homework is an integral part of this course and there will be an assignment due almost every day. Each assignment will include practice problems and pledge problems. I encourage you to work together on practice problems. You may ask assistance from me, the tutors in the Ethyl Center, or anyone else. Pledge problems must be done alone. Only the pledge problems will be submitted and graded. Assignments will be collected on the next class day and will be considered late if not submitted by 9 am the following week day. For example, homework assigned on Monday will be collected on Wednesday, but can still be submitted without penalty until Thursday at 9 am. You will be penalized 10% for a late assignment. No assignment will be accepted if it is more than two days late.

When submitting homework assignments, please adhere to the following rules:

- 1. Pages must be held together with a staple or paper clip.
- 2. Page edges must be clean (i.e. no coil notebook rip-outs).
- 3. The date the work was assigned and the date and time it was submitted must be noted at the top.
  - 4. The assignment should be neat and well organized.

## Tentative Schedule:

Week of	Sections
August 31	Prolog, 1.1, DERIVE
September 7	1.2, 1.3, 1.4
September 14	2.1, 2.2, 2.3
September 21	2.4, 2.5
September 28	3.1, Review, Midterm I
October 5	3.2, 3.3, 3.4
October 12	3.5, 4.1
October 19	4.2, 4.3
October 26	4.4, 4.5
November 2	Review, Midterm II, 5.1
November 9	5.2, 5.3, 6.1
November 16	6.2, 6.3, 6.4
November 23	6.5
November 30	7.1, Review, Midterm III
December 7	7.2, 7.3, Review