Syllabus for Math 211, Spring, 2006
Differential Equations

- **Text:** The text for this course is *Differential Equations* by Blanchard, Devaney and Hall.
- **Instructor:** Jesse Ratzkin
  - **Office:** MSB 423
  - **Office Hours:** Mondays 10:00-11:00, Wednesdays 12:00-1:00 and by appointment
  - **phone number:** 486-8391
  - **email:** ratzkin@math.uconn.edu
  - **webpage:** http://www.math.uconn.edu/~ratzkin/teaching/m211
- **Tentative Schedule:** We will cover the following topics in the ordered listed, but the dates corresponding to a particular topic may change.

Jan. 18	introduction: differential equations as models	1.1
Jan. 20–23	separable differential equations	1.2
Jan. 25–27	slope fields	1.3
Jan. 30.	Euler's method	1.4
Feb. 1	existence and uniqueness	1.5
Feb. 3–8	phase plots, equilibria, and bifurcation	1.6–1.7
Feb. 10–13	linear, first order differential equations	1.8
Feb. 20–24	first order systems and phase plots	2.1–2.2
Feb. 27–March 3	some properties of linear systems	3.1
March 13–22	solutions via eigenvalues	3.2–3.5, 3.7
March 24–April 5	linear, second order differential equations	3.6
April 7–14	forced harmonic oscillators	4.1–4.4
April 17– 26	nonlinear systems, linearization, and bifurcation	5.1–5.2

  There will be three exams in this course, including the final (which is tentatively **Tuesday, May 2, 10:30–12:30**). The midterm exams will be on **Friday, Feb. 17** and **Friday, March 31**.

  Here is a list of some other dates you might want to keep in mind:
  - Last day to drop: March 27
  - Spring recess: March 6–10
- **Grading:** To assign grades, I will form a weighted sum of all the grades you receive throughout the semester. The weighting will be

midterm exams	20% each
homework	20%
final exam	40% .

  I expect that the median grade in this class will be a B-.
- **Homework Policy:** I will assign homework approximately every two weeks, and grade several selected problems from each assignment. You are encouraged to collaborate with others in the class, but you must write each homework assignment in your own words. I do not accept late homework assignments.

- **Exam Policies:** I do not allow reference materials (e.g. a page or index card of notes) during exams. I do allow calculators which cannot do symbolic computations, but they are not required.

- **ADA Statement:** The Americans with Disabilities Act requires that reasonable accommodations be provided for students with physical, cognitive, systemic, learning and psychiatric disabilities. Please contact me at the beginning of the semester to discuss any such accommodations you may require for this course.

- **General Comments:** Please ask me questions. In general, this is the best way for you to learn the material, and the best way for me to tell how well the class is following the lectures. Asking many questions makes you happier and my job easier. I also encourage you to come to my office hours, or drop by my office outside of office hours. I'm ususally available for questions.

  Please keep in mind that mathematics is not a spectator sport! You can only learn math by doing it, so it is imperative that you do the homework.

  Good luck.