

MAT 514 — SPRING 2009 — COURSE SYLLABUS
INTRODUCTION TO ORDINARY DIFFERENTIAL EQUATIONS

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Time & Place: MW 3:45–5:05, Carnegie 311
Office hours: MW 3:00-3:35, TR 1:00-2:00.
Also by appointment, and any time my door is open.
Webpage: <http://web.syr.edu/~momcderm/math514/spring2009>

Prerequisites: 12 credit hours of Calculus or equivalent. Credit will not be given for both MAT 514 and 485. Students are expected to be able to:

- take partial derivatives;
- set up and evaluate integrals;
- do integration by parts; and
- work with elementary linear algebra.

Textbook: *Elementary Differential Equations and Boundary Value Problems*, 8th ed., William E. Boyce and Richard C. DiPrima. We will cover parts of Chapters 1–3 and 5–6, including: the analytic and qualitative aspects of first-order differential equations (linear and nonlinear), second-order linear equations, power series solutions, and Laplace transforms. The book is a standard, and very well-written; you are strongly encouraged to read the new material before class.

Calculators: You are allowed to use a graphing calculator on all assignments, quizzes, and exams for this class, including the final. Symbolic calculators (e.g., the TI-89/92) may not be used.

Grading:

First test:	Wednesday, February 18	20%
Second test:	Wednesday, April 1	20%
Final exam:	Thursday, April 30, 5:00-7:00	35%
Homework and quizzes:	alternate Wednesdays	25%

Tests will be given in class. The final exam will be cumulative. There will be no makeups for the tests or final exam. If you have an excused absence for one of the tests, your grade on the relevant portion of the final will be used.

Homework: The key to success in this course is to master the homework. Homework will be assigned at each class and collected weekly at the beginning of class, usually on Wednesdays. **Late homework will not be accepted.** A portion of the homework problems will be graded. You are encouraged to discuss the homework problems with your classmates and to work together, but the work you submit must be your own. The exam problems will be very similar to those on the homework.

Quizzes: There will be a quiz given in class about every other week. Your lowest quiz score will be dropped when determining your grade.

Attendance: You are expected to attend every lecture, quiz, exam, and the final exam. If you miss a class, it is your responsibility to get lecture notes for that class from another student. You are also responsible for any announcements about changes to the course schedule or exam schedule, or other administrative announcements that were made in that class.

Academic Integrity: The Syracuse University Academic Integrity Policy (see pp. 190-192 of the Student Handbook) governs the work completed in this course. The first violation of this policy on a quiz or exam will result in a 0 on that quiz or exam, and the appropriate Dean will be notified. The second such violation will result in failing the course as well as notification of the appropriate Dean. I encourage you to work together on homework and discuss problems and their solutions, but you must write up your solutions individually and never copy someone else's solution. Copying a homework solution, in part or in full, is considered a violation of academic integrity.

Accessibility: If you are a student with an identified disability and would like to receive reasonable accommodations, please provide me with the necessary documentation from the Office of Disability Services (ODS) at the start of the semester. See pages 186-189 of the Student Handbook for more information. You can contact ODS at 804 University Avenue, Room 309 (443-4498).

Tips for Success:

- (1) It is absolutely essential that you understand how to solve all the assigned problems. Once you understand how to solve a problem, write your solution down neatly and in full detail with explanations that make your reasoning clear.
- (2) Don't fall behind! The material builds on itself, so you must be on top of the material at every stage.
- (3) Come to office hours.
- (4) Form study groups with your classmates.
- (5) Questions in class are strongly encouraged.
- (6) You can be successful in this course! Don't be discouraged if you find some of the material difficult. Be persistent and patient.