

**MAT 514-M002 — SPRING 2010 — COURSE SYLLABUS**  
**INTRODUCTION TO ORDINARY DIFFERENTIAL EQUATIONS**

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Time & Place: MWF 11:40–12:35, Carnegie 313

Office hours: MW 2:30-3:30, T 1:00-2:00, WF 10:30-11:30

Also by appointment, and any time my door is open.

Webpage: <http://momcderm.mysite.syr.edu/math514/spring2010>

**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*, 9<sup>th</sup> ed., William E. Boyce and Richard C. DiPrima. We will cover parts of Chapters 1–3, 6, and 7 including: the analytic and qualitative aspects of first-order differential equations (linear and nonlinear), second-order linear equations, Laplace transforms, and systems of first order linear equations. 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 exam:	Friday, February 19	25%
Second exam:	Wednesday, March 31	25%
Final exam:	Friday, May 7, 5:15-7:15 pm	30%
Homework and quizzes:		20%

Exams will be given in class. The final exam will be cumulative. There will be no makeups for the in class exams or the 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 governs the work completed in this course. Serious sanctions can result from academic dishonesty of any sort. For more information and the complete policy, see <http://academicintegrity.syr.edu>. 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 believe that you need accommodations for a disability, please contact the Office of Disability Services (ODS), <http://disabilityservices.syr.edu>, located in Room 309 of 804 University Avenue, or call (315) 443-4498 for an appointment to discuss your needs and the process for requesting accommodations. ODS is responsible for coordinating disability-related accommodations and will issue students with documented disabilities Accommodation Authorization Letters, as appropriate. Since accommodations may require early planning and generally are not provided retroactively, please contact ODS as soon as possible. You are also welcome to contact me privately to discuss your academic needs although I cannot arrange for disability-related accommodations. Making arrangements with ODS takes time. Do not wait until just before the first test.

### **Helpful Warnings:**

- (1) Don't fall behind! The material builds upon itself *rapidly!* Keep up on a daily basis.
- (2) Try to think of why each method works and when it applies. As the semester goes on, that will be much easier to remember than specific formulas.