# MAT 414, Introduction to Ordinary Differential Equations, Fall 2016

## All sections

**Textbook:** *Elementary Differential Equations, 10th ed.*, by William E. Boyce and Richard C. DiPrima. We will cover the following sections:

Chapter 1: 1.1-1.3
Chapter 2: 2.1-2.7
Chapter 3: 3.1-3.8
Chapter 7: 7.1-7.9
Chapter 6: 6.1-6.5

These include the analytic and qualitative theory of first-order differential equations (linear and nonlinear), second-order linear equations, systems of first-order linear equations, and the Laplace transform.

**Prerequisites:** 12 credit hours of Calculus or equivalent. *Credit will not be given for both MAT 485 and MAT 514.*

**Grading:** The course grade will be based on 2 semester exams (25% each), a final exam (30%), and homework and/or quizzes (20%). The final exam is comprehensive. The exam dates as well as the policy on homework and quizzes for your section will be announced in class by your instructor. *There will be no make-up exams or quizzes. To receive credit, you will have to show all details of your work on each exam or assignment!*

**Attendance:** Attendance is required. Missing class is among the most common reasons for poor performance in the course. Students are responsible for all the announcements made in class (about assignments, due dates, etc). If you miss a class, you are responsible for obtaining notes for that class from a student who attended.

**Course Supervisor:** Professor Dan Coman, 317 D Carnegie, 443-1496, dcoman@syr.edu
Please inform your instructor first of any problems you have. Problems not satisfactorily resolved with your instructor should be brought to the attention of the course supervisor without delay.

**Students with Disabilities:** 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 303 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 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.

**Academic Integrity:** The Syracuse University Academic Integrity Policy holds students accountable for the integrity of the work they submit. Students should be familiar with the Policy and know that it is their responsibility to learn about instructor and general academic expectations with regard to proper citation of sources in written work. The policy also governs the integrity of work submitted in exams and assignments as well as the veracity of signatures on attendance sheets and other verifications of participation in class activities. Serious sanctions can result from academic dishonesty of any sort. For more information and the complete policy, see http://academicintegrity.syr.edu

**Religious Observances Policy:** SU religious observances policy recognizes the diversity of faiths represented among the campus community and protects the rights of students, faculty, and staff to observe religious holidays according to their tradition. Under the policy, students are provided an opportunity to make up any examination, study, or work requirements that may be missed due to are religious observance provided they notify their instructors before the end of the second week of classes. For fall and spring semesters, an online notification process is available through MySlice (Student Services $\rightarrow$ Enrollment $\rightarrow$ My Religious Observances) from the first day of class until the end of the second week of class.

**Tips for Success:** Don't fall behind! The material builds upon itself rapidly, so try to keep up on a daily basis. It is absolutely essential that you understand how to solve all the assigned problems. Once you understand how to solve a problem, write down your solution neatly and in full detail with explanations that make your reasoning clear. This will make your old homework assignments more useful to you when you are studying for an exam. Expect to work hard, be persistent and patient.