

SYRACUSE UNIVERSITY

MAT 414, SPRING 2017 - INTRODUCTION TO ORDINARY DIFFERENTIAL EQUATIONS

Instructor: Dr. G. C. Verchota, Professor of Mathematics, Room 316C Carnegie Building.

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Location: Class meets in Room 115 Carnegie, 12:45pm – 2:05pm, Monday and Wednesday.

Office Hours: Monday 8-9:30am Tuesday 8:30-10:00am

Textbook: *Elementary Differential Equations*, 10th edition, William E. Boyce and Richard C. DiPrima.

Course Description: We will cover parts of Chapters 2-3 and 5-7, including: the analytic and qualitative aspects of first-order differential equations and systems (linear and nonlinear), second-order linear equations, power series solutions, and Laplace transforms.

Mathematics Prerequisites: 12 Credits of Calculus or equivalent. Students are expected to be able to:

- take partial derivatives; set up and evaluate integrals; do integration by parts; and work with vectors and matrices.

Important Note: Credit will not be given for both Mat 414 and Mat 485.

Grading: Your grade will be based on your scores on two midterm tests, a final exam and quizzes. Each midterm test will each count 25%, the final exam 25% and the quizzes 25% toward your grade. Midterm exams will be given **February 15** and **March 29**.

Quizzes: Quizzes will be based on the most recent material and assigned homework, and will be given most days. Time will be allotted to answering questions on the homework at the beginning of the class period before any quiz. Some low quiz grades will be dropped at the end of the term.

Makeups: There will be no makeups. For an absence to be excused, you must let your instructor know as soon as possible, preferably before the exam or quiz. If not before, you need to provide evidence that the absence was unavoidable - for example a doctor's note. If you have a documented excused absence for one of the midterm exams, your grade on the relevant portion of the final will be used.

Final exam: Tuesday, May 9, 12:45pm-2:45pm.

Attendance: You are expected to attend class. In particular a poor quiz grade will affect your course grade. You are responsible for any announcements made in class. If you have an emergency and miss class be sure to get the day's notes from another student.

Calculators: Use of calculators is not allowed on quizzes or exams.

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://academic.integrity.syr.edu>.

Complete academic honesty is expected of all students. Any incidence of academic dishonesty, as defined by the SU Academic Integrity Policy, will result in both course sanctions and formal notification of the College of Arts & Sciences.

On any homework you may work together and discuss problems and their solutions, but you must write your solutions individually. What you write must reflect your own understanding of the problems. Copying a homework solution, in part or in full, is considered a violation of academic integrity.

Disabilities: Students who may need academic accommodations due to a disability are encouraged to discuss their needs with the instructor at the beginning of the semester. In order to obtain authorized accommodations, students should be registered with the Office of Disability Services (ODS), 804 University Avenue, Room-309, 315-443-4498 and have an updated accommodation letter for the instructor. Accommodations and related support services such as exam administration are not provided retroactively and must be requested in advance.

Faith Tradition Observance: SU's religious observances policy can be found at http://supolicies.syr.edu/emp_ben/religious_observance.htm. Under the policy, students are provided an opportunity to make up any examination, study, or work requirement that may be missed due to a religious observance provided they notify their instructors before the end of the second week of classes. There is an online notification process available on MySlice.