

SYRACUSE UNIVERSITY

MAT 414, SPRING 2018 - 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 100 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 14** and **March 28**.

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 8, 8:00-10:00 am.

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.

Disability-Related Accommodations. 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.

Academic Integrity: Syracuse University's Academic Integrity Policy reflects the high value that we, as a university community, place on honesty in academic work. The policy defines our expectations for academic honesty and holds students accountable for the integrity of all work they submit. Students should understand that it is their responsibility to learn about course-specific expectations, as well as about university-wide academic integrity expectations. The policy governs appropriate citation and use of sources, the integrity of work submitted in exams and assignments, and the veracity of signatures on attendance sheets and other verification of participation in class activities. The policy also prohibits students from submitting the same work in more than one class without receiving written authorization in advance from both instructors. Under the policy, students found in violation are subject to grade sanctions determined by the course instructor and non-grade sanctions determined by the School or College where the course is offered as described in the Violation and Sanction Classification Rubric. SU students are required to read an online summary of the University's academic integrity expectations and provide an electronic signature agreeing to abide by them twice a year during pre-term check-in on MySlice.

The Violation and Sanction Classification Rubric establishes recommended guidelines for the determination of grade penalties by faculty and instructors, while also giving them discretion to select the grade penalty they believe most suitable, including course failure, regardless of violation level. Any established violation in this course may result in course failure regardless of violation level. For more information and the complete policy, see <http://class.syr.edu/academic-integrity/>

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 -> Enrollment -> My Religious Observances) from the first day of class until the end of the second week of class.

Attendance and Participation: You are expected to attend class. If you miss a class you are responsible for obtaining notes for that class from a student who attended. It is also your responsibility to find out about any announcements made in class.