MAT 414   Introduction to Ordinary Differential Equations
Summer Session II 2015

MTWTh 2:00 pm - 3:45 pm   Browne Hall 125

Instructor: Professor Suanne Au   **Phone:**   443-1498
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Office Hours: MTWTh 1:00 pm - 2:00 pm

Mathematics Prerequisite: Calculus through MAT 397. Mastery of differential and integral calculus is essential for working with differential equations. In particular, 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. Credit will not be given for both MAT 414 and MAT 485.

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

Course Description: We will cover parts of Chapters 1-3, 6, and 7 including 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.

Calculator Policy: You are allowed to use a graphing calculator (such as TI-83) on all quizzes and exams. Symbolic calculators (such as TI-89) may not be used.

Homework: Homework will be assigned each day in class, and should be completed before the next class meeting. Homework will not be collected, but you cannot be successful in the class unless you do the problems. You are encouraged to work with others on the homework, and ask questions about homework problems in class and during office hours.

Quizzes: A short quiz will be given every class day (except exam days) on the previous day's material. No make-up quizzes will be given. The two lowest quiz scores will be dropped.

Exams: There will be three exams: one-hour exams on July 16 and July 30, and a two-hour comprehensive final exam on the last day of class, Aug 13. We do not give make-up exams, even in the case of an emergency. With an acceptable excuse your missed exam score will be replaced by your score on the relevant portion of the final exam.

Grading: Your grade will be computed using the following percentages:

Quizzes	20%
Exams (25% each)	50%
Final Exam	30%

Your letter grade for the course will be determined as follows:

Percentage	Letter Grade	Percentage	Letter Grade
$93 - 100$	A	$77 - 79$	C+
$90 - 92$	A−	$73 - 76$	C
$87 - 89$	B+	$70 - 72$	C−
$83 - 86$	B	$60 - 69$	D
$80 - 82$	B−	$0 - 59$	F

Students with Disabilities: If you believe that you need accommodations for a disability, please contact the Office of Disability Services (ODS) at

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http://disabilityservices.syr.edu

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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 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 exam.

Academic Integrity: Syracuse University sets high standards for academic integrity. Those standards are supported and enforced by students, including those who serve as academic integrity hearing panel members and hearing officers. The presumptive sanction for a first offense is course failure, accompanied by the transcript notation "Violation of the Academic Integrity Policy". Students should review the Office of Academic Integrity online resource "Twenty Questions and Answers About the Syracuse University Academic Integrity Policy" and confer with instructors about course-specific citation methods, permitted collaboration (if any), and rules for examinations. The Policy also governs the veracity of signatures on attendance sheets and other verification of participation in class activities. For more information and the complete policy, see http://academicintegrity.syr.edu. For this course in particular, the use of any notes during quizzes and exams is considered to be a violation of the academic integrity policy. A first violation will result in a zero on the quiz or exam. A second violation will result in failing the course.

Course-related Problems or Questions: Please inform your instructor of any problems that you have with this course. Problems not satisfactorily resolved with your instructor should be brought to the attention of the course supervisor without delay. The course supervisor is Prof. Graham Leuschke, gjleusch@syr.edu.

Attendance: You are expected to attend and participate in class. Missing class is the most common reason for poor performance in the course. If you must 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.

Tips for success in this course:

- Don't fall behind! The material builds upon itself rapidly. If you are having difficulties keeping up with the material, see me immediately to discuss the problem.

- 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. This will make your old homework assignments more useful to you when you are studying for an exam. In addition, you will get practice writing answers for quizzes and exams.

- Ask questions in class, during office hours, by email.

- Discuss problems, work on homework, and study with other students.

- Expect to work hard. Don't get discouraged if you find some of the material difficult. Be persistent and patient.