MAP2302 – Elementary Differential Equations — Fall, 2015

Time and Location: MWF period 7, Little Hall, Room 127

Office Hours : MWF period 6, and by appointment made 24 hours in advance. The purpose of office hours is to provide additional assistance in understanding the material given in lectures and the homework. They are **not** meant to help you to learn material from lectures that you **chose** to miss.

Note on Email: I often check my email just in the early afternoons on weekdays. So if you need a reply by a certain time, plan ahead accordingly.

Text: *Differential Equations w/Boundary Value Problems* by Zill & Wright, 8th edition.

Prerequisites: The Calculus sequence. This means that you not only have taken the courses, but can easily do basic calculus such as all standard integrals, derivatives, basic trigonometric identities, methods of integration (substitution, parts, trig identities etc), how to find maximums of functions, graph functions, etc.

Brief Course Description: This course introduces ordinary differential equations, which are used to describe the evolution and behavior of physical processes in most fields of scientific study, from physics and engineering to economics and sociology. The course will teach you how to solve large classes of ordinary differential equations either explicitly or implicitly, including linear ordinary differential equations of arbitrary order (with constant coefficients), most nonlinear equations of first order, and some special classes of nonlinear second-order equations. Methods of solution include integrating factors, the method of undetermined coefficients, the method of variation of parameters, and the method of Laplace transforms.

Course Format: Lectures Monday and Wednesday; lecture and problem discussion on Friday followed by a quiz. There may be deviations from this schedule because of holidays, exams, etc. Note that this is a 3 credit course so unlike Calculus it meets just 3 times a week. This means that a greater percentage of the time has to be spent covering new material than in a Calculus course.

Exams: There will be three 50-minute in-class exams on Friday, September 25, Friday, October 30, and Friday, December 4. The time and date of the final exam is set by the University to avoid conflicts and cannot be changed. The **final exam** will cover the entire course and will take place on **Wednesday December 16, 3:00-5:00** in the regular classroom unless announced otherwise in class. You must attend the exam at this time, there will be no other final exam offered, so plan on it! No calculators, notes or books are allowed during exams.

Homework and Quizzes: The homework assignments are posted on the class Homework Webpage. It will not be collected. It is very important that you keep up to date and do all the assigned homework problems, even though they will not be collected for grading. We will (probably) **not** be using the on-line homework system WebAssign in this course. The quizzes on Friday will consist of average difficulty homework problems with the numbers changed.

Quizzes: With a few exceptions for holidays, etc, there will be a quiz on every Friday, as well as on the last day of classes, yielding about 12 quizzes for the semester. The two lowest quiz grades will be dropped. There are no make ups on quizzes. A missed quiz gets a zero. If you miss three quizzes, and you have documentation for all three, you can make up one quiz, etc.

Grades: The grades will be computed based on 15% for the quizzes (the two lowest quiz grades will be dropped), 20% for each hour exam, and 25% for the final exam. The grading scale is approximately A: 90-100, B: 80-90, C: 70-80, D: 60-70, E: 0-60, with pluses and minuses at the extremes. Any discussion about your grade on a quiz or exam must take place within one week of the date they were returned in class.

Class Attendance and Protocol: Most students benefit a great deal from attending class regularly. Arriving late and/or leaving early, reading the newspaper, talking, texting, etc. disrupts the class and is rude and unprofessional. As far as I know it is impossible to take math notes on a laptop, so please don't open yours in class. **You are responsible for all information given in class** and posted on the course websites, for example, changes to the exam schedule, etc.

Excused Absences: In certain circumstances a student will be able to make up a missed exam. These circumstances could include medical situations, family emergencies, travel for University activities (eg. band, debating club, etc), and religious observances. In these cases the student must inform me before or within one week after the missed work and **provide written documentation**.

Honor Code: In this course authorized aid on homework consists of talking to me, other students, and looking at the text for this course. This means that you are not allowed to look in other books for solutions to the homework or at the written solutions of other students.

Additional Information:

Grades: Grading will be in accord with the UF policy stated at https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx.

Honor Code: "UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class."

Class Attendance: "Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx."

Accommodations for Students with Disabilities: "Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, https://www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester."

Online Evaluations: "Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at https://evaluations.ufl.edu. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at https://evaluations.ufl.edu/results/."

Contact information for the Counseling and Wellness Center: http://www.counseling.ufl.edu/cwc/Default.aspx, 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.