

**Course Information**

Math 238, section 101  
Applied Differential Equations, I  
12:30pm–1:45pm, TR in ILB 360

Note: this course is taught as a traditional lecture course.

**Instructor**

Prof. Steve Brick, ILB 317.  
office hours: MWF 12:30pm-2:00pm.  
web page: see the relevant pages at <http://www.southalabama.edu/mathstat/>

**Method of contact:** Messages can be left for the instructor at the department office, ILB 325 either in person or by phone: 460-6264. But the process of leaving a message containing a request should never be construed as having had the request granted. Due to spam and viruses, email will only be read if it is sent from a University email address (i.e. one with the domain “*usouthal.edu*”). Confidential information, such as grades, will never be given out over the phone or in email.

**Course Description:** First order differential equations. Higher order linear differential equations. Systems of first order linear differential equations. Laplace Transforms. Methods for approximating solutions to first order differential equations. Applications. Students should have taken or be taking MA 227. Core Course.

**Goals and Objectives:** Understand the definition of a differential equation and the meaning its solution. Be able to solve first order differential equations and apply their solutions Understanding of higher order differential equations (mostly 2nd order). Introduction to systems of equations and Laplace Transforms.

**Course Materials:** *Differential Equations and Boundary Value Problems*, fourth edition by Edwards and Penney. We will cover selected material from chapters 1-4 and 7 as time permits. The course will provide an introduction to the basic methods, theory, and applications of differential equations.

**Attendance:** You are responsible for everything that happens each and every class day, including but not limited to handouts, homework, quizzes, exams, and syllabus changes. Each student should contact other classmates for any missed material. Students are expected to participate in the class and not to be just passive observers. It is imperative that students come to class prepared.

**Attendance and Grades:** Attendance will be taken. Students who miss class should bring written excuses to the next class meeting. Only serious, valid and documented reasons will excuse an absence. Each student is permitted two unexcused absences. For each additional unexcused absence, the student's final grade for the course will be lowered by one full letter grade.

**Homework Assignments:** See the homework sheet handout for the assignments. The homework will not be collected or graded. But failure to do the homework will almost certainly result in failing grades.

**Calculators:** Students are required to have a calculator and to know how to use it. **Unless otherwise stated, use of calculators will not be permitted on quizzes or exams.**

**Study Groups and Tutors:** Study groups outside of class are strongly encouraged. Often the best way to learn material is to explain it to someone else. The department runs a free tutoring lab. Some students also find private tutors helpful. In any case, the more effort put into a class, the more likely a good grade is.

**JagSuccess:** JagSuccess is a program intended to help students be successful in 100 and 200 level courses. If you are not doing well, you will receive an email instructing you to see your professor and academic advisor. You will also receive a link to an online survey regarding class habits and study skills. Based on your survey score, you will receive recommendations for improving your performance. Watch for the JagSuccess email during week 7 of this semester.

**Quizzes and Exams:** There will be frequent unannounced short quizzes. The quizzes are all extra-credit and will be graded very strictly, with points given only if all the work is shown in a clear and concise manner. There will be two midterm exams given during the semester with exact dates to be announced in class. **The first exam will take place before February 17 due to the JagSuccess program.** There will be a two hour final exam. Each student must take the final during the official exam period. See the official schedule of classes for the exact date and time. If there is any ambiguity about the time of the final, it will be resolved in class at the end of the semester. A copy of the schedule is attached to the homework sheet handout.

**Notecard:** Exams are all closed book and notes with the exception of a single small index card of notes measuring no more than 3 inches by 5 inches. Both sides of the index card may be used. The students are free to put any information on their cards and to update them frequently. Cards may not be shared during any exam or quiz.

**Make-up Tests:** There will be no make-up quizzes given. Make-up exams will only be given for documented illnesses or other serious reasons (a vacation is never a valid reason). Early exams, including the final, will not be given. Do not make any vacation plans that conflict with the final exam.

**Grading:** The two midterms will be worth 100 points each. The final exam will be worth 150 points. The quizzes will be extra-credit points. Letter grades will not be assigned until the end of the semester. Instead, students will be given information about the distribution of scores. The method of grade assignment will be a strict percentage scale (i.e., the cutoff for A's will be 90%, for B's will be 80%, for C's will be 70% and for D's will be 60%.) Cheating of any form will not be tolerated and will result in an automatic F for the course.

**Grade Posting:** Grades and any other confidential information will not be posted in the building, nor will they be given out over the phone, nor on the web, nor by email. Instead students should use the University's online PAWS system. If after the course grade has been submitted the student wishes to obtain more information, then he or she should make an appointment after the semester break.

**Official Policies to be aware of:** The University has official policies on Academic Disruption and on Student Academic Conduct. These are published annually in *The Lowdown*.

**Failing and Extra Help:** It is the student's responsibility to seek extra help as needed. Do not wait until you are failing before doing so. If you decide to drop the course, feel free to speak with the department chair or assistant to the chair beforehand for counsel. Be sure to check the University policy on the deadlines for dropping a course.

**Note:** If you have a specific disability that qualifies you for academic accommodations, please notify me and provide certification from the Office of Special Student Services.

**Note:** Student Learning - Quantitative Reasoning is the ability to systematically analyze quantitative concepts, evidence, processes, and outcomes to reach a rational conclusion.

Class policies may change without prior notice. Any such change will be announced in class. Failure to attend class does not excuse the student from any changes. Any change will be made available in hardcopy in class or as a pdf file online within 2 weeks of the change. There is no assumption of any legal liability or responsibility for the accuracy, completeness, or usefulness of any information disclosed here. De minimis non curat lex.