

Math 251
Differential Equations
Fall 2010

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Office Hours:
MW 2:00 – 3:30
TuTh 1:30 – 2:30
after class, or by arrangement

Textbook: Zill, *A First Course in Differential Equations with Modeling Applications*, 9th edition.

Grades

Course grades will be determined on the basis of 3 midterms, a final exam, and weekly homework assignments. All graded activities will be combined into a percentage of possible points (details available if you wish) that will be converted to a course grade on a scale that is at least as generous as the following:

95 – 100	A	80 – 82	B–	63 – 65	D+
91 – 95	A–	78 – 80	C+	< 63	D, D–, or F (depending in part on a subjective assessment of your work)
89 – 91	B+	67 – 78	C		
82 – 89	B	65 – 67	C–		

Final exam is Wednesday, December 15, 8:30 – 11:30 a.m. Note that this is the last day of the exam week. The final will **not** be offered any other time – *please plan accordingly*.

Midterm exams are scheduled for Tuesdays, September 21, October 26, and November 23.

Homework assignments will be given almost every week, due on Thursday. Late homework will not be accepted, except according to the extension policy (see back of this sheet). There will be opportunities in class to ask questions about homework.

Group project/presentation: Late in the semester you will complete a group project on a sample modeling application of differential equations, and make a presentation to the class. Details later.

Calculators will not be needed for the class, although they will probably be convenient from time to time.

Electronic copies

Electronic copies of many course documents and files (handouts, homework assignments, etc.) will be placed in a public folder for this course on File Server 1. This is the **only way** that homework assignments will be distributed. You are also invited to access other documents in the folder whenever you like.

Cell phones: OFF.

(Over)

Policy on homework collaboration

Working together with other people is a great way to learn mathematics. I encourage you to work together on the homework, if you find that it helps you to learn. However, homework for this course is also graded, as part of your final course grade. Each student must write up his or her own homework solutions. By handing in homework solutions to be graded, you are promising that you took part in solving the problems, and that you are not just copying someone else's work. Handing in homework to be graded when you did not participate in solving the problems is a violation of the Honor Code.

Make-up Exams and Extensions on Assignments

Extensions on the due dates of assignments and individual re-scheduling of exams will be granted only for the following reasons:

- Serious and verifiable illness or medical emergency
- Participation in an *official* Rhodes College activity (e.g., course field trip, sports team travel)
- Religious holidays
- Major life event (such as birth, wedding, death) – your own or a close family member
- Other genuine emergency that is beyond your control

Notice that this is an extensive list. It does not, however, include situations in which the timing of an exam or assignment is simply inconvenient for you. In particular, there will be no accommodation for ordinary travel arrangements before or after college breaks.

If you wish to request an extension or re-scheduling because of a situation which can be known ahead of time, it is your responsibility to make arrangements in advance. Permission might not be given after the fact. You may be asked to make your request in writing.

In all cases, your instructor is the final judge of whether an accommodation is warranted.

About the course

Course goal: To develop an understanding of the theory, solutions, and applications of differential equations

Differential equations is a vast area within mathematics. This course will give you an introduction to the fundamental concepts, some of the basic solution techniques, and a sampling of important applications.

Topics will be addressed from a variety of perspectives:

- *Analytic* (that is, solving by algebra)
- *Numerical*
- *Qualitative* (that is, *in graphs* and *in words*)

You will be asked to understand the course material from all of these points of view.