

Math 251, Fall 2011

Dr. Sarah Raynor

Textbook: Ordinary Differential Equations, Morris Tenenbaum and Harry Pollard, ISBN 0-486-64940-7. This book is published by Dover and is currently listed at \$14.03 on Amazon.

Office: Manchester 343
758-4466

Office Hours: Office hours will be from 1-4pm Monday, Wednesday, and (usually; travel permitting) Friday. You are welcome to drop by my office any time that I am in.

Email: raynorsg@wfu.edu

Course Website: <http://www.wfu.edu/~raynorsg/math251.html>

TA: Quinn Morris. Quinn's help session hours will be announced by the second week of the semester.

Prerequisites: Two semesters of calculus, including sequences and series.

Course: This course is a first course in ordinary differential equations. We will cover linear and nonlinear first order equations, including separable and exact equations. We will also study higher-order linear equations, including power series solutions. Finally, we will study systems of first order differential equations. The focus of the course will be on modeling real world problems using differential equations and on understanding the qualitative behavior of solutions to each type of equation.

Homework: There will be two types of homework assignments in this course. First, there will be weekly problem sets due on Wednesdays, which will be exercises written by Dr. Raynor. Second, there will be projects. Each project will be an extended homework problem asking you to explore one of the applications of the differential equations we are studying. Projects will be due every 2-3 weeks, usually on Fridays.

Tests: The course will have two in-class exams. The tentative dates of the exams are Friday, September 30 and Friday, November 4. You must contact me by September 7 if you will have any conflicts with these dates. Otherwise, you may miss the exams only in the case of serious illness or emergency. The course will have a final exam at 2:00pm on Tuesday, December 13.

Evaluation: There are 4 components of your final grade.

1. The 50 minute in-class exams are worth 20% of your grade each, for a total of 40%.
2. The three hour final exam is worth 35% of your grade.
3. The written weekly homework is worth 10% of your grade.
4. The projects are worth 10% of your grade.
5. Positive participation in class is worth 5% of your grade.

Important Notes

- No late assignments will be accepted, and makeup exams will not be given. Should you be forced to miss an assignment or exam due to a legitimate excuse, it will not count toward your grade. This will have the effect of making your other assignments or exams worth more.
- I encourage you to talk to other students, the TA, and myself about assignments. When completing written assignments to turn in for a grade, you must sit down and write up the assignment on your own after asking your questions.
- Please contact me ASAP if you will need to miss class due to a university-sponsored activity, such as athletics. Also, if you have a disability that may require an accommodation for taking this course, please contact the Learning Assistance Center (758-5929) within the first two weeks of the semester.