MATH 231 - Differential Equations I - Fall 2009

Professor: Tim Schulze, AC 415C, 974-4162, schulze@math.utk.edu

Office Hours: W 2:00 – 3:00 or by appointment

Text: *Fundamentals of Differential Equations, seventh edition*, Nagle, Saff & Snider (NSS).

Course Prerequisites: Second semester calculus

Grading: Your grade will be determined by a weighted average of homework (15%), 2 midterm exams (25% each) and a comprehensive final exam (35%). Homework will be assigned on most days and collected on Tuesdays at the beginning of class. No late assignments. Makeup exams are only given if arranged before the exam. Any student who feels s/he may need an accommodation based on the impact of a disability should contact me privately to discuss your specific needs. Grades will be awarded based on the following percentages: A 90 and above, A- 87, B+ 83, B 80, B- 77, C+ 73, C 70, C- 67, D+ 63, D 60, D- 57, F below 57.

Course Description: This course is an introduction to differential equations. We will cover initial value problems, some simple applications, linear equations with constant coefficients, Laplace transforms and series solutions. This corresponds to chapters 1-4,7,8 in NSS. If time permits, we will also cover some of chapter 6.

1. The first midterm covers chapter 1, 2 & 3, emphasis on first-order equations (chapter 2).
2. The second midterm covers chapter 4 & (time permitting) some of chapter 6 , emphasis on second-order, linear equations.
3. The final is cumulative, but will have some emphasis on chapters 7 & 8—Laplace transforms and series solutions.

Here are some important dates:

- October 15 - Fall break, no class
- November 26 - Thanksgiving break, no class
- December 1 - Last day of class
- December 8 - FINAL: 12:30–2:30