

Introduction to Differential Equations – Math 285 G1

Spring 2009

Syllabus

Instructor: Lee DeVille

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Course Web Page: <http://www.math.uiuc.edu/~rdeville/teaching/285/>

Text: Edwards and Penney, *Differential Equations with Boundary Value Problems: Computing and Modelling*, Custom Edition for the University of Illinois at Urbana-Champaign, Pearson Custom Publishing, 2008.

Lecture Time and Location: MWF, 3–3:50, Altgeld 245.

Office Hours: Illini Hall 344B, time TBD

Subject material: The material in chapters 1, 2, 3, 9, 10 will be the core of the course. See the online syllabus at

http://www.math.uiuc.edu/Bourbaki/Syllabi/syl285_edwards-penney.html

Grading: The course grade will consist of two midterm exams, weekly homework assignments, in-class quizzes, and a final exam. Each of the midterms will be worth 20%, the final worth 35%, and the total homework score worth 20%, and the quizzes worth 5% of your final grade. Final grades will be determined from averages using the standard ten-point scale. The *tentative* schedule for the exams will be

- Midterm 1: February 25, Chapters 1–2
- Midterm 2: April 8, Chapters 1–3
- Final Exam: 1:30–4:30 PM, Friday, May 15, location TBD, Chapters 1–3, 9–10

All tests and homework are *cumulative*. Homework will be assigned and collected regularly — there will be a homework assignment collected on most weeks throughout the semester.

Course goals and expectations:

This course is designed to be the student's introduction to two important bodies of knowledge. The first is purely mathematical, and consists of the ability to *solve* a certain class of differential equations. The second is more practical, and involves an ability to use computational tools to *understand* the solutions of differential equations which cannot be solved. Both of these skills are indispensable to anyone in a scientific or engineering field, and this class is, for most students, the first step in these directions.