

PARTIAL DIFFERENTIAL EQUATIONS FOR ENGINEERS

Time and Location:

T, Th, 6:00-6:50 pm, JWB 335

Instructor:

David George
LCB 318. 581-8340. george@math.utah.edu
Office Hours: T, Th, 5:00-5:50pm, or by appointment

Textbook:

Partial Differential Equations with Fourier Series and Boundary Value Problems, N. Asmar, Prentice Hall

Course Website:

<http://www.math.utah.edu/~george/math3150>

Grading Policy:

The grade breakdown is as follows:

- 45% 3 in-class midterms (15% each)
- 30% 1 comprehensive final
- 25% weekly homework

Homework:

Homework assignments will be assigned weekly on Tuesdays and collected the following Tuesday in class. **No homework will be accepted after 6:50pm on Tuesdays.** The problems will be given in class and also posted on the Course Website. Solutions will be available on the website.

Exam Schedule:

- Midterm 1: Thursday, Sept. 21. (Tentatively)
- Midterm 2: Tuesday, Oct. 24. (Tentatively)
- Midterm 3: Tuesday, Nov. 21. (Tentatively)
- Final: Tuesday, Dec. 12, 6:00-8:00 pm, JWB 335.

Course Topics:

We will cover sections in chapters 1-4 and 6-7 and if time permits some of chapter 8. Not all sections in the chapters will be covered. The central theme of the course is solution techniques for IBVPs (Initial and Boundary Value Problems for PDEs). This includes the Method of Separation of Variables and Eigenfunction Expansions, Boundary Value Problems, Fourier Series and Fourier Transforms for classical linear PDEs such as the wave equation, the diffusion equation and Laplace's equation.

ADA

The Americans with Disabilities Act requires that reasonable accommodations be provided for students with physical, sensory, cognitive, systemic, learning and psychiatric disabilities. Please contact me at the beginning of this semester to discuss any such accommodations you may require.