

MATH 454

Text: Elementary Applied Partial Differential Equations (3rd Ed) by R. Haberman

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Office Hours: Tuesdays and Wednesdays 2 to 4

GRADING: 4 midterm exams: 70% final exam: 30%

Homework

Homework will be assigned but not graded. Written solutions will not be provided but I will be happy to check your homework in office hours. The material on the midterms and on the final will be very similar to the homework.

Background Required

- 1) Linear Algebra (eigenvectors and eigenvalues)
- 2) o.d.e.'s (at least one class)
- 3) Complex Variables (basic stuff)

Course Outline

- 1) Heat Equation
- 2) Separation of Variables
- 3) Fourier Series
- 4) Wave Equation
- 5) Sturm-Liouville Problems
- 6) Nonhomogeneous Problems
- 7) Fourier Transforms
- 8) Green's Functions
- 9) Method of Characteristics