Math 311   **Applied Mathematics: Physical Sciences**   **Spring 2007**

Course Information

Instructor:	Warren Weckesser	**Office:**	314 McGregory
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Office Hours: Tuesday, 11:15 AM –1:00 PM
Wednesday, 10:00 AM – Noon
Other times by appointment.

Text: *Applied Partial Differential Equations with Fourier Series and Boundary Value Problems*,
by Richard Haberman (Prentice Hall, 2004)

Web Page: `http://math.colgate.edu/∼wweckesser/math311/`

Overview:

This course is an introduction to *partial differential equations*. We will study how partial differential equations arise as models of physical processes, and we will learn several techniques for solving certain equations.

We will cover Chapters 1-5 and most of Chapter 7 in detail. We will also cover selected topics from Chapters 8-12, including Green's functions, infinite domain problems, and (if there is time) the method of characteristics.

Prerequisites:

Math 308 - Differential Equations, or permission of the instructor.

Homework:

There will be weekly homework assignments.

Collaboration with your classmates on the homework is allowed, and even encouraged. *Collaboration* means working together so that each of you understands the problems and can solve them on your own; it does not mean simply copying someone else's answer. You must write your own solutions in your own words.

Exams:

There will be two take-home midterm exams and a self-scheduled comprehensive final exam. The dates of the midterm exams will be announced later.

Grading:

Your grade will be based on the following:

Homework	25%
Midterm Exam 1	25%
Midterm Exam 2	25%
Final Exam	25%