

Math 392 | Spring 2004 (Advanced Topics in Analysis)

*Calculus of Variations and Partial Differential Equations:
Analysis, Numerics, and Applications*

Instructor: Rob Manning
Hilles 207C (up right from Hilles main entrance)
896-1210
rmanning@haverford.edu

Office Hours: MF 1-2 PM
T 1-3 PM, W 11:30-12:30
(or arrange another time with me)

Course Description: This course is an introduction to several topics in applied math, including boundary value problems in ordinary differential equations, the calculus of variations, and partial differential equations. These topics are united by a few themes: there is interesting analysis connected to them, their solution generally require numerical computation, and they have applications in a variety of scientific fields. As a result, we will split our time in the course among these three themes: analysis, computation, and applications.

Prerequisites: Math 317 (Analysis I) or permission of the instructor. Even though much

Grades:

Homework : 25%

Tests: 25% each

Project: 25%