

# MATH 151 Mathematical Algorithms with *Matlab*

## Spring 2012

- **Instructor:** Lori Ziegelmeier
- **My Office:** Weber 234
- **My Email:** ziegelme@math.colostate.edu
- **When and where:** 01/17-02/19 T R 4:00 - 6:50 Weber 205
- **Texts:** None required.

### **Objectives:**

This course is an introduction to Mathematical Algorithms using Matlab. The topics are chosen mainly from the broad area of Numerical Computation, which involves, for example, a numerical solver for ODEs, numerical integration, and solving nonlinear equations. However, we allow for variability in curriculum topics and everything will be self-contained. This course is a programming course. We will learn how to write simple programs in the Matlab language, and we will answer the question of how to choose the right data types for storage of data. Restated, the primary goal is to learn basic algorithmic principles and data types.

### **Prerequisites:**

There are no formal requirements. Some mathematical proficiency is assumed.

### **Grading Rules:**

There will be lab assignments. The final grade is determined by your performance on these lab problems. There will be no final exam (remember this is a one credit mini-course). Labs should be doable in class, but if more time is needed, the lab can be handed in at the start of the next class session with no penalty.