

# Applied Numerical Mathematics

## MAP 5385.01, Spring 2008

**Time and Place:** MW 4:30-5:45, BA 206

**Instructor:** Dr. Brian Moore

*Office:* MAP 202B

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*Office Hours:* MTW 3:00-4:00

**Textbook:** *Numerical Analysis: Mathematics of Scientific Computing* (3rd edition)  
by David Kincaid and Ward Cheney

**Course Goals and Objectives:** The aim of this course is to teach students how to derive, analyze and implement numerical methods for solving linear systems and differential equations. To achieve these aims, it is expected that students have experience writing program code to numerically solve mathematical problems. Computer projects may be completed using your preferred programming language, but mathematical software known as MATLAB will be used to teach the course. This is an introductory course and will cover the basic topics of error, stability, and efficiency for various numerical algorithms, which are covered in Chapters 4, 5 and 8 of the textbook.

**Other Course Materials:** Assignments, course announcements, changes to the syllabus, course related help, and links to Matlab tutorials, will be posted on a course web page (<http://www.math.ucf.edu/~bmoore/MAP5385.htm>). *Students will be held responsible for keeping informed.*

**Assignments:** There are 4 written assignments and 4 computer projects. Details for these respective assignments and projects will be posted on the course web page.

**Examinations:** There will be one in-class midterm exam, covering material from Chapters 4 and 5. There will also be a final exam covering material from Chapter 8. *Make-up exams will not be allowed* unless your absence is justified by substantial documentation. Students are required to speak to me in advance if you know that you will be unable to attend an exam.

**Grade Composition:** Written Assignments 25%, Computer Projects 25%, Midterm 25%, Final 25%

Any complaints should first be brought to my attention. If, having done this, the issue remains unresolved, then you may make an appointment to speak with the Chair of the Department of Mathematics, or contact the Department Secretary in MAP 207.

I would like to hear from anyone who has a disability which may require seating modifications or testing accommodations or accommodations of other class requirements, so that appropriate arrangements may be made. Please contact me during my office hours, and contact Student Disability Services, Ferrell Commons 132..