

CAAM 353: Computational Numerical Analysis

(Spring, 2009)

- **Instructor:** Yin Zhang, Room: DH 3090, Phone: X5744.
- **Office Hours:** Wed: 1:00–3:00pm or by appointment.
- **Textbook:** *Numerical Computing with MATLAB*, by Cleve Moler.
See <http://www.mathworks.com/moler/>
- **Course Webpage:** <http://www.caam.rice.edu/~zhang/caam353/>
- **Coverage:** (Tentative)
 - Linear Equations (Chap. 2)
 - Zeros and Roots (Chap. 4)
 - Least Squares (Chap. 5)
 - Interpolation and Quadrature (Chaps. 3 and 6)
 - Ordinary Differential Equations (Chap. 7)
 - Fast Fourier Transform (in Chap. 8)
 - Optimization

Not all content above will be covered or covered at the same level of details.

Prerequisite: MATH 212 and CAAM 210 (Multivariable calculus, Matlab)

- **Course Work and Grading:**

Homework problems, including Matlab programming projects, will be regularly assigned on-line. Some assignments will be pledged and carry twice as much weights in the final grades.

Up to two late submissions will be accepted for 80% of the credit until the third day after specified due dates, or otherwise with the permission of the instructor. There will be no exams.

Check the graded homework carefully as soon as it is returned. If you detect mistakes in the grading, notify your instructor immediately. Homework scores cannot be changed two weeks after they are assigned.

Grading: Homework and Projects 90%; Class Participation: 10%

- **Honor Code Policy:**

Unless noted otherwise, students can discuss assignments with classmates and help each other with understanding and ideas, but must write out solutions and codes individually. Copying or sharing any part of an assignment, especially computer codes, is strictly prohibited.