

MCS 471: Numerical Analysis

Fall 2008

MWF 2-2:50pm LCA A005

Professor: Benjamin Akers
Office: SEO 1213
Office Hours : Tues 1-2pm, Wed 10-11am, Wed 3-4pm and by appt.
Email: akers@math.uic.edu

Recommended Text(s):

Applied Numerical Analysis, Gerald & Wheatley

Numerical Analysis, Sauer

Analysis of Numerical Methods, Isaacson & Keller

Course Description: We will introduce the basic ideas and techniques of numerical analysis. Methods will be presented for solving algebraic equations, evaluating integrals, approximating derivatives, and solving differential equations.

Grading: There will be three exams (two in-class midterms and a final) constituting 70% of the course grade. Students will be evaluated via homework problems and in-class quizzes, totaling 20% of the students grade. A long-term computing project will comprise the remaining 10%.

Schedule

Event	Date	Grade Fraction
Exam 1	Friday, Oct. 3 rd	20%
Exam 2	Friday, Nov. 7 th	20%
Final Exam	Wednesday, Dec 10 th	30%

Homework and Quizzes: Homeworks will be assigned throughout the semester. They will be supplemented by in class quizzes. Students performance on these homeworks and quizzes will constitute 20% of the course grade. There will be no makeup quizzes, and late homework will not be accepted. However, the lowest quiz and homework scores will be dropped. Quiz and homework schedules will be available on the course webpage:

<http://www.math.uic.edu/~akers/MCS471.html>

Course Materials: Many of the assignments for this class will require computer programming. There is no requirement as to which computer language is used. Some popular options include C++, Fortran, Maple, Matlab (or Octave).