

MTH 452 Numerical Analysis II

Instructor: Guowei Wei

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Office Hours: WF 2:00 - 3:30pm, or by appointment

Class Hours: MWF 9:10 -10:00am at C305 WH

Text: W. Cheney and D. Kincaid: Numerical Mathematics and Computing, Fifth Edition (Chapters: 8, 12-17).

Course description: This course is an introduction to the following subjects:

- (1) Numerical methods for solving linear equations
- (2) Boundary value problems
- (3) Solution of partial differential equations
- (4) Smoothing of data and minimization of functions
- (5) Monte Carlo methods
- (6) Linear programming

Homework: There will be several homework assignments during the semester. Your solutions of the homework problems will be collected and graded. Some of the assignments will require computer programming. You can use any computer language, but MATLAB is convenient and preferred.

Exams: There will be an hour exam and a final exam. The exam dates are Wed., Mar. 2 and May ?. All exams will be close book, close notes and in class. The final exam will be comprehensive (two hours).

Grades: Your grade will be based on 30% of homework, 30% of the hour exam and 40% of the final exam. (90% - 100% is 4pts, 85% - 89% is 3.5pts, 80% - 84% is 3.0pts and etc.).

Absence: Although class attendance will not be counted, you are expected to be present at all class meetings. You are responsible for getting all the class information if an absence of class is unavoidable. Make-up exams will ONLY be given for reasons like sickness with a doctor's

note. For family matters, school activities, etc., make-up exams usually will not be granted. For very special cases, please come to talk to me ASAP for other possible arrangements.

Important Days: Please pay attention to

1. Mon. Jan. 10, 2005 - First day of classes.
2. Fri. Jan.14 - Close of computer enrollment. Last day to change to or from Credit/No credit or visitor grading options.
3. Fri. Jan. 21 - Last day to late add or changes sections (within the same course). Note: from Jan. 17 to Jan. 21, students MUST go to A212 WH to make these changes.
4. Mon. Jan. 17 - Martin Luther King Day. Classes cancelled.
5. Fri. Feb. 4 - Last day to drop a course and receive a 100
6. Wed. Mar.2 - MIDDLE OF SEMESTER: Last day to drop a course with no grade reported.
7. Mon. Mar. 7-Fri. Mar. 11 - Spring Break.
8. Fri. Apr. 29 - Last day of classes