

# Math 5334-01 — *Numerical Analysis* Spring 2008

January 9, 2008

## **Prof. Victoria Howle**

Office: MA 217

Email: [victoria.howle@ttu.edu](mailto:victoria.howle@ttu.edu) (email is by far the easiest way to reach me)

Phone: 742-2580 ext.264

Office Hours: MW 2:00–3:00 (or by appointment)

You should always feel free to stop by if I am in my office. But if it is not during office hours and I am in the middle of something, I may have to ask you to come back at another time.

## **Classroom Lecture:**

MWF 10:00 - 10:50 a.m., Math 010

Some classes will be held in the computer lab (Math 009). I will announce those or put a note in 010.

## **Text, software, and course web page:**

- **Numerical Computing with Matlab, Cleve Moler**
- **[www.math.ttu.edu/~vhowle/Courses/Math5334\\_Spring2008.html](http://www.math.ttu.edu/~vhowle/Courses/Math5334_Spring2008.html)**

We will cover much of the book, plus there will be some supplementary material from other texts and journal articles.

The course web page will have syllabus, important dates, assignments, projects, etc. Please check the course page frequently.

Supplementary software (as well as a web edition of the text book) is available at: <http://www.mathworks.com/moler>.

We will have Matlab available on the computer lab machines. If you wish to have your own copy, there is a student version of Matlab (or your department may also have licenses).

## **Learning Objectives:**

Students will master theoretical and practical concepts in the solution of systems of linear equations, error analysis, interpolation techniques, optimization, least

squares methods, numerical differentiation and quadrature, numerical solution of ordinary and partial differential equations, eigenvalues and singular values.

### Methods of Assessment of Learning Outcomes:

Assessment will be achieved through one or more activities, non-graded and graded, such as: class attendance, class discussion, board work, short quizzes, homework, examinations, course projects and other optional activities deemed appropriate by the instructor. Class grades will be assigned as follows:

#### Grading Criteria

<b>Homework</b>	See course web page for assignments and dates.	30%
<b>Quizzes</b>	(at discretion of prof. — will count in HW grade)	
<b>Examinations</b>	2 in-class examinations <i>No make-up exams without prior approval with valid documented excuse.</i> approx. dates: Friday 2/8 and Friday 3/14	20%
<b>Final Exam</b>	Comprehensive (Tuesday, 5/6, 1:30 to 4:00)	20%
<b>Course Project</b>	This will be a more in depth assignment over the course of the semester.	30%
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<b>Total</b>		100%

#### Grading Scale (Base 800 pts):

A = 100%–85%, B = 84%–70%, C = 69%–55%, D = 54%–45%, F = 44%–0%

#### Late policy for assignments:

**Assignments are due by 12:00 noon on their due date. After noon on the due date, the assignment is consider 1 day late, with another late day added each subsequent day at noon (including weekends).**

You are allowed 7 total late days for the semester. You may used them as you need them on assignments. However, once you run out of your 7 days, you will lose 10% of the points for that assignment for each subsequent late day.

#### Important Dates:

- Monday, 1/21: Martin Luther King Day (no class)
- 3/15 to 3/24: Spring Break (no class)
- Monday, 4/28: last day of classes
- Tuesday, 5/6: comprehensive final exam, 1:30 – 4:00 p.m.
- See course web page for other important dates.

## **Notices:**

### **Academic Integrity (extracted from OP 34.12)**

It is the aim of the faculty of Texas Tech University to foster a spirit of complete honesty and high standard of integrity. The attempt of students to present as their own any work not honestly performed is regarded by the faculty and administration as a most serious offense and renders the offenders liable to serious consequences, possibly suspension.

Scholastic dishonesty includes, but it not limited to, cheating, plagiarism, collusion, falsifying academic records, misrepresenting facts, and any act designed to give unfair academic advantage to the student (such as, but not limited to, submission of essentially the same written assignment for two courses without the prior permission of the instructor) or the attempt to commit such an act.

### **Civility in the Classroom**

Please be considerate to others.

- Be respectful to me and to your fellow students.
- Turn off cellphones, pagers, ipods, etc. (anything that makes noise).
- Don't hold side conversations during class.
- If you must come in late or leave early, do so as quietly as possible. Note that if you arrive late or leave early you may miss critical information or graded quizzes.

### **Observance of Religious Holiday (Extracted from OP 34.19)**

A student who intends to observe a religious holy day should make that intention known to the instructor prior to the absence. A student who is absent from classes for the observance of a religious holy day shall be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence.

### **Accommodation for Students with Disabilities (Extracted from OP 34.22)**

Any student who, because of a disability, may require some special arrangements in order to meet course requirements should contact the instructor (in MA 217) as soon as possible to make the necessary arrangements. Students should present appropriate verification from Student Disability Services during the instructors office hours. Please note instructors are not allowed to provide classroom accommodations to a student until the appropriate verification from Student Disability Services has been provided. For additional information, you may contact the Student Disability Services office at 335 West Hall or 806-742-2405.