

SPRING 2005  
CALL 13763

MATH 5304.501  
APPLIED MATH ANALYSIS -- NON-MAJORS

W 7:00 - 9:45 pm  
FN 2.106

INSTRUCTOR: Dr. Ed Stone                      EC 3.202                      972-883-2637.  
HOURS:                      T 12:30 - 1:30 pm, W 6:15-6:45 pm, and by appointment.

TEXT:                      Lial & Hungerford, *Mathematics with Applications*, 8th Edition, Addison-Wesley. A student solution manual is available.

PREPARATION: A knowledge of College Algebra is required, Math 1314 or equivalent. The course will begin with a brief review of some key topics.

OBJECTIVE:                      To prepare students to understand the fundamental ideas and uses of differential and integral calculus as encountered in business studies. Mathematical complexities will be kept to a minimum and emphasis will be placed on applications to economic and business analysis and modeling. Some topics to be examined include models of continuously compounded interest, depreciation, learning curves in market penetration, valuation of cash flows with interest or variability assumptions, elasticity and optimization. There will be a brief introduction to calculus of functions of two variables.

WEB:                      The utility WebCT, accessible from a UTD computer lab or from your own web connection, will be an essential communication tool for this course. The URL is <http://webct.utdallas.edu>; this can also be accessed from the UTD home page. To log on, use your netID and password; if you don't know this, obtain it promptly from the UTD computer lab. Your quiz and test grades will be posted as soon as they are ready, and your average will be updated once a week. You can download this syllabus and a file of homework assignments in MS Word (.doc). Review materials and other course notes can be downloaded using the free Acrobat Reader (.pdf). Corrections and updates of cutoffs and times can be received via email.

CALCULATOR: A scientific calculator is recommended, but not necessary. Calculators having alphabetic or graphic displays, or stored program capacity, are **not** permitted.

HOMEWORK:                      Selected odd numbered problems (answers in the back of the book) will assigned by chapter. These should be worked as soon as the corresponding section is covered in lecture. There will also be special assignments from time to time. Homework will not be collected, but it is essential preparation. If you encounter difficulty, it is appropriate to seek help from any source.

QUIZZES:                      There will be weekly quizzes. **MAKEUPS WILL NOT BE GIVEN.** The quiz average will be calculated after dropping the two lowest scores.

- EXAMS:** There will be 2 major exams, on 02/16 and 03/30. These will be given during the first 75 minutes of class, after which lecture will continue. **MAKEUPS WILL NOT BE GIVEN.** An option on the final will enable making up a missed exam.
- FINAL EXAM:** A final exam will be given in this classroom, at this time, on **April 27**. The final will be divided into three sections. The first section is **required**; it will cover the material presented after Exam II and will count equal to a major exam. Two other sections are **optional**: they will cover the material of Exams I and II respectively. The score from the optional section will be used if it is **higher**; otherwise the **average** of the two will be used.
- GRADES:** The two exams, the quiz average, and the required section of the final will count 100 points each. The term average is the total divided by 4. This will be scaled to letter grades: A 90 - 100; B 80 - 89; C 70 - 79; F 0 - 69. In graduate courses there is no D grade.
- HELP:** You are urged to get help whenever any difficulty arises; do not wait. I am available by appointment (see me after class or telephone) as well as at the office hours given above. Help is also available from the Math Lab in MC2.408; walk-in hours are MTWR 10 – 8; F 10 – 6; S 10 - 2. Individual appointments can be made by phoning 883-6707.

Supplementary notes and exercises may be distributed or posted on WebCT from time to time.

### **Important Dates**

- 01/17 Martin Luther King Day - University Holiday.  
Spring Break. University in recess Monday 03/07 through Saturday 03/12.
- 04/27 **Final Exam: 7:00 - 9:45 pm in the lecture room.**