

FALL 2005
CALL 12130

MATH 1326.001
MWF 4:00 - 4:50 pm

APPLIED CALCULUS II
JO 3.516

INSTRUCTOR: Dr. Ed Stone EC 3.202 972-883-2637
HOURS: TR 11:00 – 11:50 am; W 6:15 - 6:45 pm; and by appointment

OBJECTIVE: To provide an understanding and motivation of the fundamental ideas of integral calculus and multivariable calculus, skill in using the techniques, and facility in applying the calculus to economic and business analysis and modeling problems. Applications will include: consumers' and producers' surplus; valuation of income streams with interest or variability assumptions; survival-renewal models, differential equation models of appreciation and depreciation; learning curves in market penetration; optimal allocation of resources; Cobb-Douglas models; and the use of average and centroid in probability models. Students will be expected to relate the problems and their language to the mathematics and apply it correctly.

READINESS: Credit for Math 1325 or equivalent, OR Advanced Placement Calculus Exam AB 4, or BC 3. A self-test for assessing preparation will be given in the first class meeting. This is a challenging course and good algebra skills and proper preparation are essential for success. Attend class and do the assigned reading, work homework after every class, prepare thoroughly for quizzes and exams, and get help promptly when you encounter difficulty.

TEXT: Lial, Greenwell, Ritchey: *Calculus with Applications*, Eighth Edition, Addison-Wesley. A number of handouts will be provided to supplement or replace sections of the text or to cover topics not in the text.

RECORDS: Course records will be kept on the WebCT internet environment at the URL <http://webct.utdallas.edu>, which will be an essential communication tool for this course. To access this from a UTD computer lab or from your own web connection you will need your netID and password (if you don't know this, obtain it promptly from the UTD computer lab). Using this you can keep track of your grades and average, receive email updates from your instructor, and download the syllabus, assignments and handouts. To get the handouts you will need Adobe Acrobat Reader, available free and present on UTD computer lab equipment. If you have any trouble, get in touch with me at once.

CONDUCT: Students are expected to attend all lectures and problem sessions and to avoid talking or interfering with the attention of others. All exams and quizzes are closed-book and without notes. Students are expected to maintain silence, and to avoid any observation of others' papers. Possession of prohibited items on an exam or quiz is an **academic integrity infraction**, and will **not** be tolerated.

CALCULATOR: A scientific calculator is recommended. Calculators having alphabetic or graphic displays, or stored program capacity, are **not** permitted, and possession of such on an exam or quiz is an academic integrity infraction.

ATTENDANCE: Students are expected to take the examinations at the announced time and place. Students traveling on UTD sponsored activities must present, a week in advance, a letter from the faculty sponsor verifying the absence and committing to administer the exam at the appropriate time. If absence is occasioned by an emergency, you should present verification as soon as possible to preserve your right to equitable treatment.

HOMEWORK: Homework is not collected, but is important preparation. Selected odd numbered problems (answers in the back of the book) are assigned and other problems recommended (a student solution manual is available in the bookstore). There are also assignments in the handouts. Homework is not collected, but should be worked before the subsequent class. Get help right away if you encounter problems you cannot manage by consulting the notes or text. The file homework.doc on WebCT lists assigned problems by section.

EXAMS: There will be 3 major exams, on the **Fridays** Sept 23, Oct 21, and Nov 18. On all problems, organized work must be shown; no credit attaches merely to the final answer. Each raw score will receive an adjustment interpreted according to the letter grade scale below. **MAKEUPS WILL NOT BE GIVEN.** An option on the final will produce a score to replace **one** excused absence.

FINAL EXAM: A comprehensive final is **REQUIRED**. It will be given **2 pm FRIDAY DECEMBER 2**. Three sections of the final exam will be marked, covering the material tested on each preceding Exam. Credit from an appropriate section will provide exam scores approved for makeup. Exam papers are kept on file for one year and then destroyed. You may come by the office during that year to review your exam; it will not be returned.

GRADES: The **EXAM** scores will be equally weighted, and the **FINAL** will count one-third of the grade. The term average will be converted into letter grades by the rule: A 90 - 100; B 80 - 89; C 70 - 79; D 60 – 69, with the top third of each range marked plus, the bottom third minus.

A grade of **W** may be elected through Thursday Sep 16; after this, a grade of **WP/WF** may be elected through Thursday Oct 21. Thereafter withdrawal is permitted for non-academic reasons **only**. A grade of **INCOMPLETE** may be given **only** if (1) performance is currently satisfactory, (2) student is **not** eligible to withdraw, and (3) **unavoidable** circumstances prevent completion of the term. It is the student's responsibility to notify the instructor and document the circumstances; approval of the instructor, department head, and dean is required. The grade must be made up in the first eight weeks of the

next term.

HELP: It is essential that you attend class, work assignments promptly, and seek help immediately when you encounter difficulty. Help is available from me after class, during my office hours, and by appointment. A TA assigned to this course will hold office hours throughout the week. The Math Lab in MC 2.402 is an excellent source of walk-in help. Hours are usually MTWR 10-8; FS 10-2. Some appointments are available by phoning 883-6707.

IMPORTANT DATES:

Census Day	Friday, September 2
Last Day to Withdraw W	Thursday, September 22
Last Day to Withdraw WP/F	Thursday, October 20

HANDOUTS:

H1: diffapprox.pdf	H6: SurviveRenew.pdf
H2: DEsolutions.pdf	H7: totaldiff.pdf
H3: reversible.pdf	H8: CriticalPoints.pdf
H4: DefiniteIntegral.pdf	H9: Lagrange.pdf
H5: substitution.pdf	H10: LongRun.pdf
	H11: DEmodels.pdf