Mathematics M408N Differential Calculus for Science
Fall 2011 Numbers 54835, 54840, and 54845

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TA Office hours: M 3:00-5:00, W 1:00-2:00 or by appointment

Class webpage: www.math.utexas.edu/users/freeman/408Nfall11.html

Class time: TTh 8:00-9:15 CPE 2.214

Discussion Sections:
54835 MW 9:00-10:00am JES A215A
54840 MW 10:00-11:00am JES A218A
54845 MW 12:00-1:00pm RLM 5.120

Textbook: Calculus: Early Transcendentals by Stewart, 7th edition

Course description: Successful students will leave this course understanding the basic concepts and having mastered the computational skills of differential calculus. Topics include a review of exponential, logarithmic and inverse functions (Ch. 1); tangents and velocity, limits and limit laws, continuity, limits at infinity, the definition of the derivative, at a point and as a function (Ch. 2); derivative rules, derivatives of polynomials, exponential and trigonometric functions, the chain rule, implicit differentiation, derivatives of logarithmic functions, rates of change in science, related rates, and linear approximation (Ch. 3); extrema, the Mean Value Theorem, how derivatives affect graphs, indeterminate forms and L'Hopitals Rule, optimization, and antiderivatives (Ch. 4); areas and distances, the definite integral, and the Fundamental Theorem of Calculus. This course carries the Quantitative Reasoning flag. Quantitative Reasoning courses are designed to equip you with skills that are necessary for understanding the types of quantitative arguments you will regularly encounter in your adult and professional life.

Restrictions and Prerequisites: This course is restricted to students in the College of Natural Sciences. The prerequisite for this class is a grade 70% or better on the ALEKS assessment, and there will be no exceptions made. If you do not meet this prerequisite, you will be dropped from this class around the 4th class day (on August 29 or 30).
Grading: Grades will be based on two in-class exams (worth 45% total, your higher grade will count for 30% and your lower grade will count for 15%), a cumulative final exam (40%), and homework and in class quizzes (15%).

Your letter grade will be given based on your numerical average earned in the class: you are guaranteed a D for 60 or above, C- for 70 or above, C for 73 or above, C+ for 77 or above, B- for 80 or above, B for 83 or above, B+ for 87 or above, A- for 90 or above, and an A for 93 or above.

Exam Dates:
- Exam 1: Tuesday September 20 in class
- Exam 2: Tuesday Oct 25 in class
- Final: Saturday Dec 10 2:00-5:00pm

Calculator Policy: Calculators will NOT be allowed on exams.

Online homework: Online homework will be assigned from each section of the text via the Web using the UT homework service, Quest; all answers and grades will be returned via the Web also using Quest. There will be many assignments, but your lowest 5 scores will not count towards your grade. To pay for your use of Quest, there is a mandatory $22 charge for this course that will need to be paid after the 12th class day (you will be notified). The website for Quest is: https://quest.cns.utexas.edu/

Make-up policy: Make-ups for missed exams will be allowed in only rare circumstances, and only for serious reason. The instructor must be notified in advance.

Deadlines for dropping the course: If you drop a class on or before September 9, the class will not show up on your transcripts. September 19 is the last day to drop a class without approval, the course will show up on the transcript with a Q grade. November 11 is the last day to drop a class except for urgent and substantiated, nonacademic reasons.

Support services: Upon request, the University of Texas at Austin provides appropriate academic accommodations for qualified students with disabilities. For more information, contact the Office of the Dean of Students at 471-6259 or 471-6441 TTY. If you have need for special accommodation, you must notify the instructor at the start of the semester.

Tutoring: Drop-in tutoring (free) and private tutoring (not free) are available in the UT Learning Center in Jester A332 (lifelearning.utexas.edu/), as well as some free workshops and classes.

Academic integrity: No cheating! If you are caught cheating, you will be penalized according to the rules of UT.