MATHEMATICS 123 D1: Calculus I
Fall Semester 2008
Instructor: Takashi Kimura
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Lectures: MWF 1-2 in SCI 115

Discussion Sections: Discussion sections are primarily to go over material related to the homework and exams.
- Tu 4-5, 5-6 in MCS B33
- Wed 8-9, 12-1 in MCS B29; 9-10 in PSY B49

Text: *Calculus, Concepts and Contexts, Third Edition*, by J. Stewart (Brooks/Cole Publishing Company).

My Office Hours: M 2-4, W 2-3 (Tentatively)

Teaching Fellow (TF): Ivan Zaigralin

Content: Calculus is an important mathematical tool which allows one to solve a wide variety of problems arising in science and engineering. The first part of the course, differential calculus, is the study of rates of change of functions. The latter, integral calculus, is related to the areas and average values. The major topics covered in this class are limits and continuity; tangent lines and rates of change; derivatives; the product rule, the quotient rule, and the chain rule; implicit differentiation and inverse functions; related rates; finding maxima and minima of functions; optimization problems; indefinite integrals and antiderivatives; areas, distance, and definite integrals; the Fundamental Theorem of Calculus; and, if time permits, techniques of integration.

Web Page: All documents distributed in class, homework assignments, and related information will be posted at the URL
    `http://math.bu.edu/people/kimura/Teaching/Fall08/123/`

Homework: The best way to see if you have mastered the material is to do the homework problems. Homework assignments will generally be posted on the class Web page on Friday and due at the beginning of class the following week. Late homework will not be accepted. Students may discuss homework with each other (and are encouraged to do so) but all written work must be prepared independently. In order to receive full credit, both your answer and reasoning must be correct (the same goes for exams). Homework solutions will be on reserve in the Science and Engineering library.

Exams: There will be three in-class exams given at roughly equally spaced intervals throughout the course in addition to the final exam. **All exams will be closed book and calculators will not be allowed.** In addition, **there will be no makeup exams in this course.** If you miss exam, you will receive a zero for the exam. The only valid excuse for missing an exam is a serious illness which must be certified by a note from a physician.

The Final Exam: You will be held responsible for all of the course material in the final exam.

Class Help: There are several options to obtain help outside of class.
- In MCS 144, there are math graduate students on duty who are there to answer questions from any math class who are available during normal working hours.
- Please come see me or the TF during our office hours (or by appointment).
- Peer tutoring is available from the Educational Resource Center. For more details go to
  `http://www.bu.edu/erc/services/peer-tutoring.html`

Grades: Your final grade is determined by three categories – the exams, the homework, and the final. Grades are based upon the formula:

$$\text{Final Grade} = \frac{3}{8}(\text{Exam Average}) + \frac{1}{4}(\text{ Homework Average}) + \frac{3}{8}(\text{Final Exam})$$

The final grade is curved.

Academic Conduct: Plagiarism and cheating will not be tolerated and anyone suspected of such academic misconduct will be referred to the Dean's Office as per the provisions of the CAS Academic Conduct Code.