MATH 206A - MULTIVARIABLE CALCULUS
FALL 2007

TTH: 9:00 - 10:50 A.M. (HATHORN 104)

Instructor: Peter Wong
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Office phone: x6143
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Textbook: *Vector Calculus, 2nd ed.* by Thomas Barr, Prentice-Hall, New Jersey, 2001.
Office hours: T: 2:30pm - 3:30pm, W: 2:00pm - 3:00pm, Th: 11:00am - 12:00pm, or by appointment
Grading: Homework - 15%; 2 mid-terms @25% each; Final Exam - 30%; Attendence - 5%
Prerequisites: Math 106 (Calculus II) and Math 205 (Linear Algebra)

Approximate Curve:-

$A+ : 97\% - 100\%$	$A : 93\% - 96.9\%$	$A- : 90\% - 92.9\%$
$B+ : 87\% - 89.9\%$	$B : 83\% - 86.9\%$	$B- : 80\% - 82.9\%$
$C+ : 77\% - 79.9\%$	$C : 73\% - 76.9\%$	$C- : 70\% - 72.9\%$
$D+ : 67\% - 69.9\%$	$D : 63\% - 66.9\%$	$D- : 60\% - 62.9\%$
$F : 0\% - 59.9\%$		

Exam dates: 1st exam - Thursday, September 27; 2nd exam - Tuesday, November 6; Final - **Wednesday, December 12, 10:30 am - 12:30pm**

Objective: This course is an introduction to Calculus of several variables, i.e., a higher dimensional analog of the single variable calculus in Math 105-106. We make use of notions from linear algebra to investigate mappings from $\mathbb{R}^m$ to $\mathbb{R}^n$ and their derivatives. Continuity and differentiability of such mappings will be discussed. Integration of scalar and vector valued functions over paths and surfaces will be treated. We derive Green's theorem and

Stoke's theorem both of which are fundamental in applications in physics, engineering, and other fields.
We will cover most of Ch.1 to Ch.6 of the textbook with the possible exceptions of 4.3 and 4.5.

Notes:
1. Notice that the final exam date is scheduled for Wednesday December 12, 2007 at 10:30am (2 hour long). Do not make plane reservation BEFORE this date.
2. It is **IMPORTANT** that you **READ** the book **before** as well as **after** class. I do not expect you to *master* the concepts after the first reading of a section but familiarity of some of the terms and definitions will help understand more when I go over the same material in class. I will assign homework each lecture and I will collect them on the following Thursday. Late homework may not receive any credits. The webpage for this class is located at `http://abacus.bates.edu/~pwong/teaching/Fall2007/Math206A/Math206A.html`.
3. **Resources and Math/Stat Workshop:** Mr. Eric Towne has maintained a resource page (`http://abacus.bates.edu/~etowne/mathresources.html`) on the web that contains old exams and quizzes and related material. In addition, the College Mathematics and Statistics Workshop, located at Canham House, offers additional help on mathematics and statistics for the Bates community. Please visit the workshop or contact its director, Grace Coulombe at `gcoulomb@bates.edu`.