Math 104 Calculus I

Summer 2011

Instructor
- Name: Zhaoting Wei (George)
- Email (the best way to contact me): zhaotwei@sas.upenn.edu
- Personal webpage: www.math.upenn.edu/~zhaotwei
- Office hours: 1:30pm-2:30pm, Monday and Thursday, 3E2, DRLB, or by appointment
- Lecture time: MTWR, 10am-12:10 noon, 07.05.2011-08.11.2011, 2C8, DRLB

Course Description
Math 104 is a one-semester course in calculus for students who have had some introductory material to calculus in high school or in Math 103. **Those without such experience should first take Math 103**. (If you are not sure whether you have the right background, you can take the Math 104 diagnostic test.)

After a brief review of high school calculus, the course will discuss
- Applications of integration (calculation of volumes, surface areas, etc.)
- Methods of integration (integration of fractional functions, integration by parts, etc.)
- Infinite series (convergence and divergence, test of convergence, etc.)
- An introduction to differential equations. (set up a differential equation, solve an differential equation)

The goal of the course is to present both the concepts and the methods used in calculus, so that students will be aware of the relevance of the material and the insights it provides, as well as being able to perform computations when solving specific problems.
Solving problems is of primary importance in the course.

Course Component
The text book is: Calculus, by James Stewart, 6th Ed., Thomson - Brooks/Cole. (**Do not buy older or newer editions** of this book. Make sure to **find access to the book before the class begins.**
It is not necessary to use Maple for the course.

Course Grading
- Individual Evaluation: You score in this course will be computed by a weighted average of homework (25%), quizzes (15%), two midterm exams (15% each) and final exam (30%)
- Grades: The current plan is as follows:

Your weighted average score	The letter grade you receive
≥90%	A-, A, A+
≥80% and <90%	B-, B, B+
≥70% and <80%	C-, C, C+
<70%	D or F

It may change slightly according to the difficulty of the exams.

Homework

- **Weekly homework is the most important part of the course.** Homework will be collected **each Monday during the class** and late homework is **NOT** accepted for any reason. The homework problems will be mostly the exercises in the textbook and there will be 15-20 problems per week. Each time I will randomly pick 4 problems to grade. (The problems I choose to grade will be the same for every student.)
- There are 10 points for each homework assignment, 5 points for completeness (for all the assigned problems, not only the problems I pick to grade), 5 points for correctness. To receive credit for your homework**, you must show supporting work.** You will get no point if you only put the results on the paper.
- It is not necessary to copy the body of the problem in the homework, but you should indicate **clearly the number and page in the textbook** of each problem.
- You can discuss with others about the homework, but **NEVER COPY others' work.** Failure to follow this rule will result in disciplinary action.
- Remember to **staple** your homework and **clearly write your name** on it.
- The lowest one grade of the homework (or one of the missed homework) will be dropped by the end of the semester.

Practice Problems

To further practice their skills, some students want to do more exercises other than the homework. Hence I will assign some practice problems and put the list on the website. You don't need to hand them in.

Quizzes

- There will be 6 in-class quizzes for this course. The quizzes will begin 10-15 minutes before the class ends and each quiz contains 1 or 2 problems**.** I will not wait if someone does not hand it in, and there is **NO make-up quiz**.
- I will announce the quiz one day before it.
- The quiz problems will be **similar to the homework,** but, of course, not exactly the same. On the other hand, the quiz problems **may be the same as the practice problems.**
- You can use your textbook and note when taking the quiz.
- The lowest one grade of the quizzes (or one of the missed quizzes) will be dropped by the end of the semester.

Mid-Term Exams

- The first midterm will be on Thursday, 07.14 2011 and the second one will be on Monday, 08.01.2011. The location is in class: 2C8, DRLB.
- The midterms are not comprehensive and I will tell you what will be covered in the midterms beforehand.
- You can use a two-sided 8.5 x 11 inch cheat sheet in the midterms but **no other materials will be allowed.**
- There is **no make-up midterm**. Any student missing a single midterm exam for legitimate reasons will be assigned a grade for that exam based on his/her average grades on the midterm and final. Legitimate reasons must either be emergencies or must be granted permission beforehand; any other sort of absence will be assigned a score of 0 on the exam.

Final Exam

- The final exam will be on Thursday, 08.11.2011 and the location is to be announced.
- The final exam is comprehensive, which means that it will cover all materials we have learned in the semester.
- You can use a two-sided 8.5 x 11 inch cheat sheet in the final but **no other materials will be allowed.**
- Any student missing two midterm exams or the final exam for legitimate reasons will be given an incomplete and expected to take a make-up exam at the beginning of the Fall 2011 semester. The only legitimate reasons for missing the final exam will be conflicts with other final exams or emergency situations. In all other cases, the student will be assigned a score of 0 on the final.

Other Policies

- **No calculators allowed** in quizzes, midterms, or finals.
- You must not look at others' work or discuss with others in quizzes, midterms, and finals. **Failure to follow this rule will result in serious disciplinary action.**
- Regrade policy: It is allowed to ask for regrade but there is a time limit: Regrade requests will not be accepted more than one week after the relevant assignment was returned to you, nor will they be accepted after the final exam. Note that once the final grades are submitted, they may only be changed if there has been a genuine grading error.
  Moreover, I may make photocopy of your work as a record before I return it to you.

Some Resources

- Math 104 department page: www.math.upenn.edu/ugrad/calc/m104/
  It provides previous final exams.
- Maple help section: Harsha Reddy will hold the maple help session MTWR 9am-1pm at 4E19, DRL. He will be happy to answer your questions on Math 104.
- Tutors: You can go to the tutoring center (free):
  www.vpul.upenn.edu/tutoring/index.php
  or look for private tutors: www.math.upenn.edu/ugrad/tutors.html
- The Weingarten Learning Resources Center: www.vpul.upenn.edu/lrc/index.php

Some Suggestions

- Attend the lectures and take notes. Review your notes on the same day of class.
- Do homework every day. This will help you to follow up the course. It is **a bad idea (sometimes impossible)** to do all the homework of that week just on the day before deadline.
- Learn from the examples. If you feel difficult when doing homework, try to **look through the examples** in the textbook. In fact, the examples in the textbook are very well-written which clearly illustrate how to solve problems.
- Log on to Blackboard System to **check your grade** and other information frequently, **at least once a week**. If you find any problems about your grade, please contact me as soon as possible.
- Come to the office hours when you have problems about the course.