Math 101: Calculus I
Spring 2016

So you're here to take calculus. Why? Because you're in college now, and this is what you're supposed to do? Hopefully that's not the only reason! Maybe you need to learn how to do calculus in order to go on in a certain field. Certainly that will be one of the aims of this course - that students be able to take the techniques developed in the course and apply them appropriately to various problems. My wish for this class, however, is that you learn that there's a third reason: that calculus, thought of properly, can be beautiful, and that learning to *understand* calculus - grasping the meaning of the underlying ideas, and how they give calculus its power - rather than just how to do it, is a great way to develop your ability to think precisely and logically about the world.

Instructor: Stephen Wang (`sswang@rice.edu`)
Classroom and Course Times: Rayzor 123, MWF 10-10:50.
Office and Office Hours: Herman Brown Hall 410, tentatively Mondays 6:30-8, Wednesdays 3-4, and Thursdays 2-3:30, or by appointment. Monday office hours are held in HBH 09 (basement). Feel free to just drop by as well, though I can't promise I'll always be available.

Exams: This course will have two midterms and a final exam. The first midterm will be 7-9 PM on **Thursday February 18**, and the second midterm will be 7-9 PM on **Thursday March 24**. If you have a conflict with these dates you must let me know by the end of the first week of class. Otherwise, no excuse other than a documented medical emergency will be accepted for missing the exam.

The date for the final exam is set by the Registrar's office and is not available at this time. It is the policy of the Mathematics Department that no final may be given early to accommodate student travel plans. If you make travel plans that later turn out to conflict with the scheduled exam, then it is your responsibility to either reschedule your travel plans or take a zero on the final.

Homework: Homework will be due weekly. Part 1 of the assignment will be online, and Part 2 will be on paper. Both will usually be officially due at 11:59 PM on Tuesdays (although the paper part may be turned in at the beginning of class on Wednesday). No late homework will be accepted, barring a documented serious illness or other emergency. However, the lowest-scoring homework assignment will be dropped.

Each student will have up to two opportunities to re-do a homework problem. This must be a problem that a genuine attempt was made on, and must be requested by email within two days of receiving the graded homework. A re-do may be a similar but different problem, or may be the same problem presented orally, at Steve's discretion.

Day-to-day Requirements: By 9:15 AM each class day, students are expected to have completed an online learning sequence in preparation for the in-class activities. Since this sequence is necessary for the class activities, late submissions will not be accepted. However, a student's two lowest-scoring sequences will be dropped.

The online material is on `edge.edx.org`. Students will receive an email invitation to register. Make your username your preferred first name followed by last name or last initial. If you did not get an invitation, email Steve immediately.

No textbook will be required for this section of Math 101. If you want one for reference purposes, I recommend using James Stewart's *Calculus: Early Transcendentals*, Eighth Edition. (This is the book used in other calculus sections.)

Grades: Your course grade will be based 65% on the exams, distributed among Midterm 1/Midterm 2/Final as 20/20/25, 20/15/30, or 15/20/30, whichever benefits you the most. 15% of your course grade will depend on homework and 10% on the online learning sequences. The remaining 10% will be correlated with how seriously you take the course - attendance, participation in class activities, activity on the discussion board, etc.

Collaboration Policies: For the online learning sequences, you should work alone. Outside assistance should be limited to asking questions about parts of videos that you did not understand.

On the homework, you should work individually on the problems at first. Collaboration and discussion with others is encouraged, but only after you have given the problems a good amount of independent thought. Similarly, I am more than happy to talk with you about the homework, but only provided that you've worked on it some before coming to me.

If you have worked with others on the online homework, you must make sure that you can re-create all of the necessary work to arrive at an answer on your own, before you submit the answer.

On the written homework, please note the names of any collaborators on each problem. Furthermore, the final write-up of the problems should be done by yourself. You should show the steps you took in order to arrive at your answer, and you should understand what you are writing well enough that you need not refer to any writing or notes produced during your collaboration. A good habit to get into is to use colored paper when working with others, and white paper when working alone.

Do not use outside software (including calculator functions that go beyond the normal $+, -, \times, \div$ and exponentiation) unless otherwise specified. Do not seek help from internet sites other than the course discussion forum.

Disability Support: Students who think they may need accommodations in this course because of the impact of a disability should give me a written letter from Disability Support Services within the first two weeks of the course.