

Math 101: Single Variable Calculus I

General Summer Session 2010

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Website:	http://math.rice.edu/~do3/teaching.htm
Meeting Times:	MWF 10:00 - 11:45 AM
Classroom:	Abercrombie Lab B209
Office Hours:	TR 1:00-2:30 PM

Overview

Calculus is one of the most important human developments and one of the major motivating factors for the technical advancements of the last few centuries. At its most basic level, calculus is the study of change, and it provides us with tools and techniques for modeling and understanding our world in ways that purely algebraic computations cannot. For this reason, it is an essential area of study for students of science, engineering, and business.

Goal

This course is intended to introduce students to the concepts and methods of calculus. In particular, we will try to build an understanding of differentiation and integration, and to describe the fundamental link between these two concepts. While the major emphasis will be on giving a proper mathematical understanding of calculus concepts and the techniques of calculus, we will spend nearly as much time on modeling and the applications of these techniques, so as to better comprehend them and to help students understand their use. The course should prepare students for further study, and should provide the background necessary for Math 102.

Students should be focused and willing to ask questions and actively learn the material. Attendance at each class lecture is critical.

Text

Edwards & Penney: *Calculus: Early Transcendentals*, 7th ed. We will cover the first six chapters.

Homework

As is true for most math courses, homework will be the most important method of learning the course materials. While the lectures will serve to introduce concepts and techniques, the only way of gaining an understanding and facility with mathematics is to actually work problems.

There will be three graded homework assignments per week, due at the beginning of class (the lowest homework grade shall be dropped). Homework will be graded for correctness and clarity, so please provide justification for each problem and write legibly. Students are encouraged to work together in solving homework problems, but each student must write up solutions independently. Students should also read or at least skim the book before each class to familiarize themselves with the lecture material. You are also encouraged to work on the other problems in the book, and to see me in office hours if you have any questions on the homework or other materials.

Exams

There will be two midterm exams and a final, all three taking the form of pledged, in-class tests. These three tests will all be taken during the regular class period. The two midterms shall be held at June 25 and July 21, and the final exam will be given at the last day of class, July 30.

Grades

Grades will be based on homework, midterms, and the final exam, with the following point distributions. The lowest homework grade shall be dropped.

Homework:	30%
Midterm I:	20%
Midterm II:	20%
Final:	30%

Disability Support

It is the policy of Rice University that any student with a disability receive fair and equal treatment in this course. If you have a documented disability that requires academic adjustments or accommodations, please speak with me during the first week of class (preferably, as soon as possible). All discussions will remain confidential. Students with disabilities will also need to contact Disability Support Services in the Ley Student Center.