Math 430 Mathematical Analysis for Teachers I Fall 2011
Wednesday 5:00 - 8:00 600 SEO

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Office Hours: Wednesdays 4-4:50, or by appointment.

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This course will cover the basic properties of numbers, the completeness of the real numbers, and a rigorous development of Calculus through the fundamental theorem. Applications to high school mathematics will be considered throughout the course.

Prerequisite: Grade of C or better in MATH 210 and MATH 215.

The **required text** for the course is *Real Analysis* by Frank Morgan, 2005. The book is available through the UIC bookstore. If you look for it elsewhere use either
ISBN-10: 0-8218-3670-6 or ISBN-13: 978-0-8218-3670-5. It is published by the American Mathematical Society (AMS). There is a similarly named book by the same author which is NOT the book for the course, so make sure to get the right ISBN number.

We will also be using *Calculus* by Tom M. Apostol, 1967, pages 17 - 47. These pages will be handed out in class. The entire book is on reserve in the UIC library. *Calculus*, by Michael Spivak, is another text with a different point of view that you may find interesting and helpful. It is also on reserve in the library.

Grading for this course is based on the following:

25% Homework, including Googledocs, and quizzes

15% Class presentations

30% Midterms

30% Final

Students are required to type group work using **GoogleDocs**. If you do not have a GoogleDocs account it is easy to register: you just need to establish a username and password. Current gmail accounts work, but any email address can be used including your uic email.

If for any reason a class is missed, the student is responsible to make an appointment with the instructor to make-up missed work. Class final grade will be reduced by 3% if one class is missed, reduced by 15% if two classes are missed, and reduced by 30% if three class periods are missed. In most cases missing three classes will result in failing the course.

No homework can be accepted late, but early homework is acceptable.