MATH 3321 Analysis I
Spring 2014
225 Higgins   MWF11

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About the course
We will cover the real number system (briefly mentioning complex numbers), countable and uncountable sets, metric spaces, open/closed sets, compact sets, connected sets, sequences and subsequences, limit points, numerical series, convergence theorems, continuous/discontinuous functions, continuity and compactness/connectedness, Cauchy sequences, the derivative, mean value theorems, continuity of derivatives, and interesting examples throughout the course.

Text: *Principles of Mathematical Analysis*, third edition, by Walter Rudin.

Prerequisite
MT216 (or MT203/MT211) is the prerequisite.

Office and office hours
365 Carney Mondays 1-2, Wednesdays 3-4, Fridays 10-11 and by appointment.

Homework
Homework will be assigned and collected regularly (roughly weekly). I will return correct solutions with your papers and you should look over any mistakes and make sure you understand the solutions. **Submissions must be typeset in LATEX.** (If you need to get a copy of LATEX, mac users can go to tug.org/mactex and Windows users to tug.org/protext.)

If you are having trouble with the homework problems, I'm available for assistance and hints. You are also allowed to discuss the problems with other students, but **you alone are to write up your work**; discussion with other students is simply to understand the concepts and techniques so that you can solve the problems. **Papers containing transparent copying will be returned with zero credit.** Late homework will generally not be accepted. University procedures will be followed in integrity cases: see

www.bc.edu/offices/stserv/academic/integrity for these.

Exams
There will be two semester exams and a cumulative final. You are only allowed a make-up for a missed exam for a serious reason. If you must miss one, please clear it with me beforehand. Tentative dates are:

- Exam 1: Friday, **October 10**

- Exam 2: Friday, **November 21**

- Final: Thursday, **December 18, 12:30 p.m.**

Grades
Semester grades will be based on homework (20%), semester exams (25% each), and final exam (30%).

Disabilities
If you are a student with a documented learning disability seeking accommodations in this course, please contact the Connors Family Learning Center (617-552-8093); regarding all other types of disabilities, please contact the Disability Services Office (617-552- 3470).