

## MT 804 Analysis I, Fall 2008 Syllabus

**Schedule:** MWF 11 am, Campion 010

**Instructor:** Prof. Mark Reeder, office: Carney 322

**email:** reederma@bc.edu (great for quick questions or hints)

**Office hours:** MWF 12:30 and by appointment. Tuesdays are reserved for research and seminars.

**Course website:** <http://www2.bc.edu/~reederma/804F08.html>

(Or just Google me to find it. The website will contain homework solutions,  $\text{\TeX}$  advice and maybe other things.)

**Text:** *Basic Real Analysis*, by Houshang Sohrab.

This book contains everything you should already know, and all of what we will cover for the next two semesters. This semester we will cover most of chapters 4,5,6,7. From your undergraduate analysis class, you should already know the first three sections of each of the first three chapters. In particular, I expect you to know what the following are, precisely:

- a real number,
- sup and inf of a set of real numbers,
- a limit of real numbers,
- a continuous function defined on a subset of  $\mathbb{R}$ .

**Homework:** It will be assigned every week or two, with a due date of one or two weeks hence. You can work on the homework with other students, but the final product must be your own. These assignments will be substantial and challenging.

Your homework will be submitted in some form of  $\text{\TeX}$ , preferably  $\text{\LaTeX}$ . If you don't know about  $\text{\TeX}$ , the course website contains instructions and a template. I will also explain the main idea of  $\text{\TeX}$  and can help you get it running on your computer.

**Presentations:** Once or twice during the semester, each of you will give a 20 minute lecture to the class on a topic that I will assign to you and help you with, if necessary. You will give this lecture without notes.

**Exams:** We will have two in-class exams during the semester, and a final exam.

**Exam Dates:** Exam 1: Friday Oct 10, Exam 2: Wednesday Nov 19, Final: Wed, Dec 17, 9:00

**Grading:** Homework: 25%, Presentations: 5%, Exams: 20% each, Final: 30%