Math 101 Presentation Information Sheet

Preparing slides for mathematician and term project presentations:

The projects should be presented as a finished work using Power Point, Beamer, TeX Slides, or similar presentation software. You cannot write on the board during your talk (except in answer to a question). Your slides should be written as a list of bullet points, rather than in paragraph form. The font should be large enough for people to read without straining. All slides should have the same font and the same size font.

You should limit writing to no more than 8 lines per slide with no more than 4 lines in a row without a break or an illustration between them. Pictures are very helpful, and should be included on almost every slide. You should speak slowly and clearly, looking at the audience as you do. You should not read from your slides or notes during your talk.

Term Projects:

Topics :

1) Closures and interiors of sets
2) Rigorous development of the reals
3) The Cantor set
4) Metric spaces
5) lim sup and lim inf
6) Compact sets
7) Connected sets
8) A rigorous development of integration
9) Cardinality, including countable and uncountable sets
10) Differentiability and its relation to continuity
11) Uniform Convergence
12) Convergence of Series

Project Timeline:

1. Project topics are due the week after mid-semester break.
2. Three weeks after the break, each group will hand in a list of sources and tell me who is responsible for which part of the presentation.
3. The presentations will occur in the last week and a half of school, with a run through occurring one or two periods ahead of time.

Technical Details: Every member of the group should have an equal part in the presentation. Each part should be small. For example, one person might present a single definition and a couple of examples. Another person might present the proof of a lemma.

The presentation should be completely **rigorous and self-contained**, including definitions, examples, and proofs. It is better to cover very little material but explain it thoroughly with many examples, than to try to cover a lot. In particular, your talk should not assume that the students have any knowledge outside of what we have learned in class and what is covered in the talk. Each group will assign three **easy** homework problems based on their presentation. Everyone in the class will do these problems, including the members of the group who presented.

We will have run-throughs of the term project presentation in class. I expect the run-through to be almost perfect. You should arrive 10 minutes early to make sure that your slides work on the projector. By 9:00 AM on the day of the final presentation you should post a pdf version of your talk including the homework problems on Sakai so that the class has access to it. You should not make any further changes after posting it.