Math 5902, Teaching Seminar
Assignment 4

Reading: Krantz: Section 1.9: Time.
Rishel, Teaching First, Section 6: Lesson Planning.
McKeachie, Chapter 5: How to Make Lectures More Effective.

Due date: The readings should be done by Thursday, September 18, and the essay is due at the beginning of class.
The class notes and homework are due in my mailbox by 5 PM on Monday, September 22.

1. The sections for lecture are as follows:
   - Sept. 25: (Dioses/Gibson/Vorochilova) Section 3.1: Graphing Generic Sine and Cosine Functions
   - Oct. 2: (Boling/Anston/Liu) Section 3.2: Shifting Generic Curves Right/Left or Up/Down
   - Oct. 9: (Sharma/Howell/Tanabe) Section 3.3 and 3.4: Graphing Tangent, Cotangent, Secant, Cosecant
   - Oct. 16: (Kubo/James/Ding) Section 3.5: Qualitative Analysis of Trigonometric Functions

2. Some of this material requires graphing calculators. For now, I would like you to ignore the use of graphing calculators and instead concentrate on drawing clean curves by hand on the blackboard.

3. Write a one or two page essay explaining IN WORDS the key points of your section. (Even though you won’t lecture on the whole section, each of you should do this for the whole section assigned to you.) You should itemize and outline these points. Explain any techniques you will use to get your points across.

4. Prepare a lesson plan consisting of at least three or four handwritten pages of notes for the whole section.
   - On each section, estimate the time in minutes you expect to spend on that section.
   - Think of useful questions to ask of the class, and indicate them on your notes.
   - Pick an assortment of problems from the end of your section to serve as a homework assignment. Your selection should cover well the main points of your lecture. Estimate the time necessary for students to complete the assignment.

5. Each group of students must arrange a time of an hour or so to meet together with me on the Tuesday or Wednesday before their date to speak. We will discuss the lesson plans and agree how to divide up the lecture into 20 minute parts.