The exam has a take-home component and an in-class component. The project also counts as one-third of the exam grade. The in-class exam is Monday, May 18, at 9 AM. It is cumulative and will cover material from the entire course. The in-class exam will have a closed book portion consisting of conceptual questions and an open-computer portion on which you may use R.

The study sheets from the first two tests are on the course webpage. Here is a summary of the material that we have covered since the last test.

We covered sections 7.3, 7.4 and 7.5 of the text although our treatment of 7.5 was quite a bit different than that of the book. There were supplemental handouts on several of the days that gave additional detail concerning some of the topics. We studied the Brookings value-added model for ranking colleges. We also spent a day (April 17) discussing important topics concerning experimental design. In summary, you should know and be able to do the following:

1. Know exactly what the one-way ANOVA model is (i.e, how categorical variables are used as explanatory variables) including the Box 7.2 notation.
2. Be able to perform the model utility test in one-way ANOVA. (Section 7.3.2)
3. Be able to draw the linear algebra picture and label various vectors with their names and lengths.
4. Of course be able to read an anova table and know how the various numbers are computed from each other. (You may get a spilled ketchup problem.)
5. Be able to construct a contrast to test a hypothesis about the means of the various treatments.
6. Know exactly what the two-way ANOVA model is including interaction terms.
7. Be able to draw conclusions from an Anova table concerning the utility of various models.
8. Understand the important principles in experimental design. The words you should be familiar with include: randomization, blocking, placebo, and blinding.
9. Be able to explain how the Brookings model is used to measure the value added by a college. Be able to describe at least some of the variables in the model (both explanatory and response) and to evaluate their use.

With respect to the topics on the first two tests, any question is fair game. However the first two tests can dependably be used to get an idea of what might be considered important.

I am in my office on Friday morning from 8 AM until noon for drop-in help. I can also be available at a variety of other times. You can email me to set up a time.