PSY394T
Advanced Applied Statistics II
Weds. 1:00pm-4:00pm
SEA 2.116

Office Hours: My office is SEA 2.206. My official office hours this semester are Weds. from 9a-12n. You can also see me by appointment (emailing me at hixon@psy.utexas.edu is the most effective way to schedule time), or feel free to stop by anytime my office door is open.

Textbook: There is no textbook for this class. We will use a variety of online materials as sources for necessary background reading.

Grades: Grades will be based on two non-cumulative exams, each counting 25% of your total grade, and a series of periodic projects during the course of the semester that will be combined equally to account for the remaining 50% of your grade. This being a graduate-level class, the grading scale is as follows: A=80+, B=60-79, C=59 and below. Each exam’s results will be curved – the top three scores will be averaged and the difference between that average and 100 will be added to every person’s score. For each of the periodic projects, a letter grade will be assigned reflecting its quality. For the purposes of incorporating these project grades into the final grade computation, an A will count as a 90, a B will count as a 70, and a C will count as a 50. A missing score will be counted as 0. The graduate school now uses +/- designations in addition to simple letter grades -- a "+" is earned for a final grade in the upper third of the interval, a "-" for a final grade in the lower third of the interval, and the letter only for a final grade in the middle third. Note that the graduate school allows no A+ designation.

A note about exams: Exams are open book, open note, and computers can be used.

A university-wide note: The University of Texas at Austin provides upon request appropriate academic accommodations for qualified students with disabilities. For more information, contact the Office of the Dean of Students at 471-6259, 471-4641 TTY.

A few notes about this class:

1. Coverage of the advanced subjects in this course will not be an effective substitute for more advanced training in these areas. There are many topics (e.g., structural equations modeling) for which entire semester-long classes are offered that we will touch on in a couple of weeks.
2. Given that first point, you can anticipate that material will go by a bit more quickly than in entry-level classes. You should have a good statistics background in order to get the most out of this course. (My ANOVA and regression classes, or their equivalent, will provide more than enough background.)
3. You will get out of this class as much as you put into it. Although I have little control over what you actually do, I would encourage you to work individually on the projects. My primary goal is to train you to think about advanced applications and to actually become comfortable conducting analyses. To the extent that you work in teams, you may not develop as far as you might otherwise in your ability to think independently and in your sense of self-reliance about statistical matters.
4. It will be most useful to you if you have a dataset or datasets related to your own research to use. It’s often best to practice new analysis techniques on datasets about which you already know quite a bit. In addition, using your own datasets will aid in the development of your thinking about how to use various analysis techniques in ways that are meaningful to you.

Subjects to be covered include:

-- Categorical data analysis (chi-square, loglinear, ordinal and multinomial logistic regression)
-- Non-parametric and semi-parametric regression (splines, local regression, kernel smoothers)
-- Resampling, permutation tests, and general simulation methods
-- Structural equations modeling
-- Time series analysis