APSTA-GE 2401 Statistical Consulting Research Seminar  
Fall 2017

**Credits:** 1-3 points  
**Instructors:** Jennifer Hill (jennifer.hill@nyu.edu), Tod Mijanovich (tod.mijanovich@nyu)  
**Office Hours:** by appointment

**Course Description and Prerequisites:**

This course is designed to provide training for graduate students involved in empirical research. In this seminar format, under the guidance of two statistical faculty members, students will have the opportunity to engage in ongoing research projects in a scaffolded setting in which they will have multiple opportunities to discuss the research and receive feedback. They will also be required to critique and provide constructive suggestions for their fellow students. The focus of critiques will be on research methodology and other statistical issues. Students will additionally benefit from being able to observe how the participating faculty diagnose and solve statistical issues that arise in others’ presented work and from this advice in their own work. This course provides training in statistical consulting but can also be used as a vehicle for receiving detailed feedback on independent research.

The prerequisite for this course is intermediate and advanced quantitative methods course (APSTA-GE.2003, APSTA-GE.2004) or the equivalent as approved by the instructor. In addition, one ‘specialized’ topic in advanced quantitative methods or equivalent is recommended. Examples include multi-level models (APSTA-GE.2040 or APSTA-GE.2042), classification and clustering (APSTA-GE.2011), causal inference (APSTA-GE.2012), missing data (APSTA-GE.2013), applied statistical inference (APSTA-GE 2122).

**Grading:**

All students are required to attend each class. Students enrolled for 3 credits will be required to formally present their own work once (1/2 hour presentation) and to play the role of formal discussant once for someone else’s presentation. In addition each student will be required to present updates on their work at least once every other class (10-15 minutes). Students taking the course for 3 credits will additionally be required to provide either 1) a written summary of their work that could be used as the methods and results sections of a publishable paper, or 2) a written summary of proposed work similar to methods section of a dissertation. A paragraph describing changes to the work inspired by the class discussion should be provided as well.

Students taking the course for 2 credits are exempt only from the written work requirement. Students taking the course for 1 credit are exempt from both the primary presentation and the written work but need to be active participants in the class otherwise.

Oral and written presentations will be graded on the basis of clarity, depth and completeness, with an emphasis on improvement in quality post-critique. The final written work will be due on the day the university designates for the final exam.
**Reading materials**
Paper drafts provided by the class participants. Journal articles/book chapters/software manuals may be assigned as supplementary reading – the exact titles will depend on the students’ research areas.

**Class schedule**
Each class will follow roughly the same format. A presentation of work in progress will be given followed by guided class discussion. During the discussion, full participation of all students is expected. If time permits, students may have a second chance to present the revised project. In some instances, guest faculty members may join the class to present a "case study" consulting project.