Fall 2016 Advanced Topics/400 Level Courses

830:421 Advanced Topics in Social Psychology
The Psychology of Scientific Integrity
Professor Lee Jussim
Tillett 230, MTH2 (10:20-11:40am)

Pre-Requisite: Quantitative Methods and a Lab or 01:830:400 (Adv Stat Methods) or Adv Research in Psych (01:830:495); Jr/Sr 830 Major or permission of instructor is a prereq for Adv Topics/400 Level courses)

Description from Spring 2016:

Scientific integrity refers to two concepts that advance the idea science should be about "getting it right": 1. Personal honesty and trustworthiness in the conduct and interpretation of scientific research; and 2. Developing a body of conclusions that are valid and unimpaired. Statistics, methods, transparency, replication, and political bias have come to the fore as threats to the integrity of psychology and other scientific disciplines.

This course will address the social, psychological, and organizational factors that threaten and undermine the integrity of science. How is it possible to "prove," using conventional methods, that:

- Listening to the Beatles *causes* one to become younger?
- People have mental powers that violate all known laws of physics?
- People prefer to have fewer options when making decisions?

Why do psychologists claim that:

- Conservatives are bad, no matter how they respond in specific studies?
- Stereotypes are inaccurate, even though stereotype accuracy is one of the largest effects in all of social psychology?
- Excess Facebook usage depresses adolescents, in the absence of *any* research demonstrating or even testing for effects of Facebook usage on depression?
- Results based on American college students describe *people*, as if they generalize to all people everywhere?

Why is it that studies that cannot be replicated become famous and influential?
Why is it that, even when a study can be replicated, the results in subsequent studies are often much weaker?
Why won't some researchers let others analyze their data?

This course will provide some preliminary answers to these questions, primarily through readings and discussion. To be clear, though, this course is not *anti-science*. Its perspective is that the best antidote to bad science is not any of the vast variety of anti-scientific alternatives out there (post-modernism, social constructionism, religion, or anything else). The solution to bad science is good science.

This will be a reading and writing intensive course. And a statistics and method intensive course (thus the prereqs emphasizing statistics, methods, and labs). Most of the first few weeks will be a review of basic ideas from introductory statistics and methods (correlations, t-tests, ANOVA, p-levels, effect sizes, experiments and surveys). We will then start reading original source materials addressing various issues in the integrity of science.