

Advanced Quantitative Methods in Organizational Science

Instructor information

Dr. Janaki Gooty

Class : Friday 222 - Wednesdays 2.30-5.15

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Office hours by appointment (Call or email me to set up a time or stop by if my door is open).

Course Objectives

This course contains advanced research methods concepts and applications that are important in conducting micro, macro and meso quantitative research. This is not a statistics class although we will often delve into concepts, urban myths and accurate interpretation of statistics. In the first part of the course, we will focus on on impactful science and robust design issues in single-level research as foundation for the core content in multi-level topics. In the second half, we take on all aspects of multi-level research including but not limited to issues of multi-level construct validation, emergence, building and testing cross-level and multi-level theories.

The goals of this course are threefold:

1. To equip you with methods skills so you could independently design rigorous studies, understand and implement sound measurement and draw appropriate inferences all from a multilevel perspective
2. To critically evaluate multilevel concepts and methods in articles you are reviewing and reading
3. To articulate your ideas in 1 and 2 above in a way that is compelling yet tempered by the limitations inherent to all research and most importantly informed by science.

Structure

A PhD is first and foremost a research degree. Key skills for conducting and evaluating research include (but are not limited to) critical/original thinking and in-depth knowledge in one's chosen areas. This course will reflect that philosophy in a variety of ways. This course is entirely seminar based but I will offer brief commentaries typically at the beginning of class as some of the material is quite complex. I will, however, ask questions, direct you to other readings and/or comment on topics of discussion.

Your role is threefold: 1) Be an active participant each week in class, 2) Use course content and ideas/discussions to write a paper that will be submitted to a journal 3) Lead class discussion per assignments below. More on each of these components below.
Class note: No electronic devices during class time. Go old fashioned on this one

and print copies of readings, make notes and be ready to spend 3 hours each week minus electronic devices.

Grading

The following grading format will be used:

1. Class participation/presence: 25 points
2. Leading group discussion: 25 points
3. Final paper: 50 points

Grades for all assignments and your final grade will be based on the following scale:

90-100=A;

80-89=B;

70-79=C; There shouldn't be anything lower than this, you are graduate students! :)

I expect every graduate student to be capable of earning an A in this course. It is your responsibility not to convince me otherwise! This is a graduate course, so, I expect the highest degree of collegiality and professionalism. It goes without saying that attendance is mandatory, not just the physical kind but in terms of scholarly engagement, enthusiasm and preparedness for class.

I take instances of plagiarism, cheating or academic dishonesty of any kind very seriously and any such instances automatically invoke an F in this course and appropriate university action. Please consult the UNC, Charlotte academic dishonesty policies and student code of conduct for more information.

Class participation and presence

So much of being a good academic lies in the ability to discuss your own as well as others' scholarship in a critical and articulate manner. That is the point of class participation and presence. It is your responsibility to make yourself heard. I expect quality and deep, insightful commentary more so than quantity. The best kind of participation in a doctoral seminar requires advance reading of material and some time to organize one's thoughts and questions. Please come prepared with (at least) one discussion question per week based on our readings. In addition, you will prepare a summary of one article each week per the template provided on Dropbox. Note that good class participation requires reading all the articles but these summaries are quick reference for you to use in class. Please upload these summaries to Dropbox each week by **Tuesday @ 8am**.

Leading group discussion

As the discussion leader, you will post a summary of the themes for each week and some questions for discussion by **Tuesday at 5pm** to drobox. I do not expect a point-by-point summary of each article (we are all expected to read the articles in depth so that should be unnecessary) but what I expect is:

1. The theme of the topic (e.g., where did it originate? Why study it? What is the

current status?)

2. What are some key takeaways (this part should link to some or all readings)

3. What are some challenges/limitations in implementing some of the methods discussed? Could you speak to how the topic is treated in each of the sub-disciplines of OS?

You can draw out discussion on some or all of these questions or use your own discussion questions etc. Ultimately, I want to see a coherent and organized discussion around these questions regardless of how they actually come about. Be prepared with other questions as well -- the above is the bare minimum.

Final paper

This course is also designed to get you started on a publication in multilevel methods – or we are going to try! The final deliverable in this class is a research proposal (or completed paper if you have access to data or are further along). Your task is to critically review a content area (e.g., POS, LMX, Authentic leadership, Work-Family etc.) from a multi-level lens using the articles, ideas and concepts discussed in this course (If you need an example, see the LMX review that I did in LQ 2012). The chosen content area should have thirty empirical papers at a minimum published in top tier outlets so as to facilitate a review. As a group, we will find a multi-level review published in Journal of Management review issues or the Academy of Management Annals and discuss it in class to get a good grasp of what your proposal should look like. I expect no more than 20 pages of text and any of the formatting guidelines used in the four sub disciplines of OS. I am open to collaborations in the class as well – so if two or three students in class want to get together for the paper, that's fine but I expect you to work on it as if each person is first author for the duration of this course. Clear all such ideas and your topic areas early with me. No extensions and no incompletes will be given in this course barring serious medical or family emergencies.

Recommended books (not required reading but I find them incredibly useful)

Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical Linear Models: Applications and Data Analysis Methods*. Newbury Park, CA: Sage.

Pedhazur, E. J., & Schmelkin, L. P. (1991). *Measurement, design, and analysis: An integrated approach*. Hillsdale, NJ: Erlbaum.

The following schedule is tentative. We might go slower if needed but in my experience these courses never go faster!