Advanced Topics in Program Evaluation

Spring 2022

Instructor: Jason Coupet
Email: jcoupet@gsu.edu
Time: W 12:30p – 3:00p
WebEx Link: PMAP 9141

Course Pages:
1. Course Slack: PMAP 9141
2. iCollege

Office Hours: After class, or by appointment.

Main References: This is a restricted list of various interesting and useful books that will be touched during the course. You need to consult them occasionally.


Optional/Resources:
- Greene. Econometric Analysis, Pearson, 2018

Objectives: This course will focus on program evaluation and a number of related topics, including models of applied research, performance measurement and management, and cost-effectiveness and cost-benefit analysis. We will conceive of program evaluation broadly, thinking not just of validly measuring the effect of policy shocks but the effects of social science interventions broadly, which will include many of the approaches seen in social science research broadly.

The course will begin introducing approaches to program evaluation, but much of the course will be quite hands on. We will spend much of the course walking through, critiquing, and applying causal inference designs. You should expect to read thoroughly, but also to have fun getting your hands dirty in walking through the designs. Because many of you will likely be pursuing academic employment at some point, we will also spend some time considering these designs as tools to test theory. The empirical exercises and theoretical implications will largely be in public policy and management domains, but may include economics, social work, or criminal justice applications as well.

A major idea of the course is that you take with you and are comfortable using these applied tools. We will work heavily with Stata, but most applications will include guided approaches in R as well. Another major idea of you who will complete empirical dissertations will have and be able to use the logic, designs, and tools to graduate the more common associative analyses to inference that credibly estimates cause and effect, which will make you work much more attractive to leading policy and administration journals.

Prerequisites: This course assumes you are familiar with the logic of social science research, including the formation of research questions. It also assumes your understand and are quite comfortable with the intu-
ition, use, and assumptions of ordinary least squares/regression techniques. I also assume basic familiarity with Stata.

Other Matter: I will primarily communicate through your GSU email, and I’ll assume you check it daily. I’ve set up a Slack channel for the course and have added you all to it using your GSU emails. The purpose of the Slack is to facilitate communication between you all with regard to the course, the readings, etc. It isn’t required to use but I thought it might be a convenient place to have discussion, post things we see, share examples or code, reach out to each other if you get stuck, etc.

I am located in Raleigh until the summer, so meetings/office hours will need to be virtual, unless it coincides with a time when I am on campus. Email works best for direct communication, and I will periodically check the Slack channel.

I will work primarily in Stata, but I am agnostic about your statistical program of choice. Mixtape includes examples and R, and the online version of the text includes Python replications as well. I am only really useful troubleshooting in Stata, though, less so in R, and not much help at all in other software.

Assignments: We will have four problem sets and a paper proposal. The problem sets are designed to be exercises in applied program evaluation using the approaches we discuss (IV, RDD, Diff N Diff, etc.). They due dates are listed below.

Each student will prepare a program evaluation proposal, detailing the plan for evaluating a specific program. This requirement does not include conducting the evaluation. Students can work in pairs for this project if desired. Students should find a program to evaluate or a feasible academic research question. The assignment will motivate the question/program/policy, and put forth a thorough expository on the design and analysis plan (including where you found or might find the data), as well as a conclusion section accounting for the benefits and drawbacks of the approach.

The plan must use one of the quantitative designs we discuss in the course (though the analysis need not take just one approach and may be combined with a qualitative approach). More details about the proposal are forthcoming.

Students can work in pairs on both the problem sets and paper proposal. I strongly encouraged students in paired teams to thoroughly engage every part of the evaluation process of every assignment as opposed to simply dividing everything up such that you are getting your hands dirty in the process. This facilitates better learning.

Tentative Course Outline:

1/12: Introduction to Program Evaluation and Intervention Research
- TnC, Chapter 1-2

1/19: Needs and Process Evaluation/Qualitative Design
- Kellogg Foundation Logic Model Development Guide

1/26: Outcomes, Cause and Effect

• TnC, chapters 3

• Mixtape, Introduction


2/2: Experiments I


• The Preregistration Revolution https://osf.io/2dxu5/

• Example Pre-Registration: https://osf.io/zudta

2/9: Experiments II - PS 1 Due


2/16: Quasi Experimental Design

- TnC, Chapter 5
- *Mixtape* Regression Review

2/23: Matching - Paper Idea and Logic Model due

- *Mixtape* Matching

3/2: Regression Discontinuity Design

- *Mixtape* Regression Discontinuity Design

3/9: Instrumental Variables - PS 2 Due

- *Mixtape* Instrumental Variables
3/16: Spring Break

3/23: Panel Data

- Mixtape Panel Data

3/30: Difference in Difference I - PS 3 Due

- Mixtape Difference in Difference

4/6: Difference in Difference II


4/13: Synthetic Control Methods

- Mixtape Synthetic Control

4/20: Efficiency - PS 4 Due


4/27 - Final Proposal Due

Grading Policy: Problem Sets (10% each), Participation (20%) Final Proposal (40%).

Important Dates:
- PS #1 Due .................................. Feb 9
- Paper idea/Logic Model ......................... Feb 23
- PS #2 Due .................................. March 9
- PS #3 Due .................................. March 30
- PS #4 Due .................................. April 20
- Final Paper .................................. April 27

Access and Accommodations: If accommodations/modifications are needed, I am happy to work with you. Please let me know as soon as possible and contact the Access and Accountability Center.

Class Policy: Regular attendance is essential and expected. If you have to miss, please discuss what you missed with your classmates. That being said, we are still in the midst of a major pandemic. My goal is that we can extend grace to each other throughout. Please come to class well read and ready to participate. Robust discussion is a critical part of academic work. Shy or not, you will be expected to speak up, share, and challenge. The course is no fun without that. Double emphasis on well-read. This course works much better if you get your hands dirty with the material.

Academic Honesty: Any instances of plagiarism will be handled via the GSU policy. Lack of knowledge of the academic honesty policy is not a reasonable explanation for a violation. My view on these issues is as follows: This course is designed to engaged skill to help facilitate your growth of a scholar. The grade is secondary and mostly really meant to serve as a signal to you about your grasp of the material. If you don’t engage the work fully yourself, you only really disrupt the signals meant to serve you. Its like hiring a personal trainer and not doing the workouts, or sending someone else to do the workouts.