DEPARTMENT OF ECONOMICS
UNIVERSITY OF MISSOURI-COLUMBIA

Economics/Public Affairs 9446
Advanced Empirical Methods

Fall 2020 – Class Meetings Days/Times: Tues/Thurs 11-12:15, Ellis Library 6A
Professor Cory Koedel
Email: koedelc@missouri.edu
Office hours: by appointment via Zoom

Prerequisites: 8451, 8473 (concurrent enrollment acceptable), 9473 is recommended.

OBJECTIVES:
The objective of this course is to provide a comprehensive toolkit for the evaluation of key economic policy questions in the areas of applied economics including labor economics, public economics, education economics, health economics and social welfare. The course will cover the most current and relevant empirical techniques in these fields, and provide context and examples of applications.

Grading:	Assignments:	30 percent
	Midterm Exam:	15 percent
	Final Exam:	25 percent
	Research Paper Proposal:	5 percent
	Research Paper & Presentation:	25 percent

Assignments: There will be three empirical assignments over the course of the semester. The assignments will involve the practical application of the empirical tools that you will learn about in the course.

Exams: The midterm will be given between weeks 7 and 9 of the semester. The final exam will be given during final exam week at the university-specified time.

Papers: The paper assignment will be discussed during the first week of class. The requirement will be a paper that is between 8 and 15 pages in length.

DECREASING THE RISK OF COVID-19 IN CLASSROOMS AND LABS

MU cares about the health and safety of its students, faculty, and staff. To provide safe, high-quality education amid COVID-19, we will follow several specific campus policies in accordance with the advice of the Center for Disease Control and Boone County health authorities. This statement will be updated as information changes.

- **If you are experiencing any COVID-related symptoms,** or are otherwise feeling unwell, do not attend in-person classes and contact your health care provider and/or student health immediately. COVID symptoms include: fever greater than 100.4 or chills; cough, shortness of breath or difficulty breathing; fatigue; unexplained muscle or body aches; headache; new loss of taste or smell; sore throat; congestion or runny nose; nausea or vomiting; diarrhea.
- We will all wear **face coverings while in the classroom**, unless you have a documented exemption due to a disability or medical condition.
- We will maintain a **6-foot distance from each other at all times** (except in specific lab/studio courses with other specific guidelines for social distancing).
- We will enter the classroom and **fill the room starting at the front, filing all the way across a row**. When class ends, we will exit the row nearest to the door first; the instructor or TA will give the signal for the next row to exit, in the same manner.
- In any small section or lab class that requires them, **additional measures will be listed in the syllabus and be mandatory for class participation**.
- Online office hours will be available for all students.

• This course may be recorded for the sole purpose of sharing the recording with students who can't attend class. The instructor will take care not to disclose personally identifiable information from the student education records during the recorded lesson.

Compliance with these guidelines is required for all; anyone who fails to comply will be subject to the accountability process, as stated in the University's Collected Rules and Regulations, Chapter 200 Student Code of Conduct.

By taking the above measures, we are supporting your health and that of the whole Mizzou community. Thank you in advance for joining me and your peers in adhering to these safety measures.

Topics and Reading List (Rough Guide)

Methodological Overview

Mostly Harmless Econometrics: An Empiricist's Companion, Joshua D. Angrist and Jörn-Steffen Pischke, 2009. Princeton University Press.

(This book will be a useful reference for the entire course. Chapters 1-5 will be most relevant)

Experimental Research Designs

Doleac, Jennifer L., and Luke C.D. Stein, (2013). "The Visible Hand: Race and Online Market Outcomes." *The Economic Journal* 123, F469-F492.

Cullen, Julie Berry, Brian A. Jacob, and Steven D. Levitt, (2006) "The Effect of School Choice on Participants: Evidence from Randomized Lotteries," *Econometrica.*

Selection on Observables: Multiple Regression & Matching Methods

Clotfelter, C.T., H.F. Ladd and J.L. Vigdor, (2006). "Teacher-Student Matching and the Assessment of Teacher Effectiveness." *Journal of Human Resources* v.41 n.4 pp.778-820.

Black, D., and Smith, J. (2004). "How Robust is the Evidence on the Effects of College Quality? Evidence from Matching," *Journal of Econometrics* 121(1-2): 99-124.

Fixed Effects

Jeffrey M. Wooldridge, *Econometric Analysis of Cross Section and Panel Data,* (2010). Chapter 10.

Blau, David M (1999). "The Effect of Income on Child Development," *The Review of Economics and Statistics*.

Ashenfelter, Orley and Alan Krueger (1994). "Estimates of the Economic Return to Schooling from a New Sample of Twins," *American Economic Review*.

Babcock, Philip (2010). "Real Costs of Nominal Grade Inflation? New Evidence from Student Course Evaluations," *Economic Inquiry* 48(4).

Aaronson, Daniel, Lisa Barrow and William Sander (2007). "Teachers and Student Achievement in the Chicago Public High Schools," *Journal of Labor Economics*.

Difference-in-Differences

Card, David and Alan B. Krueger (1994). "Minimum Wages and Employment - A Case Study of the Fast Food Industry in New Jersey and Pennsylvania", *American Economic Review*, (84:4), September.

Butcher, Kristin F., Patrick J. McEwan, and Akila Weerapana (2014). The Effects of an Anti-grade-Inflation Policy at Wellesley College. *Journal of Economic Perspectives* 28(3), 189-204.

Doleac, Jennifer L., and Benjamin Hansen (2020). The Unintended Consequences of "Ban the Box: Statistical Discrimination and Employment Outcomes When Criminal Histories are Hidden." *Journal of Labor Economics* 38(2): 321-374.

Regression Discontinuity

Cattaneo, M.D., Idrobo, N., and Titiunik, Rocio (2017). A Practical Introduction to Regression Discontinuity Designs. *Cambridge Elements: Quantitative and Computational Methods for Social Science.* Cambridge, UK: Cambridge University Press.
[material from this article will be covered selectively]

Bowblis, J.R., and Smith, A.C. (forthcoming). Occupational Licensing of Social Services and Nursing Home Quality: A Regression Discontinuity Approach. *Industrial and Labor Relations Review*.

Instrumental Variables

Jeffrey M. Wooldridge, *Econometric Analysis of Cross Section and Panel Data*, (2010). Chapter 5.

Murray, Michael P. (2006). Avoiding Invalid Instruments and Coping with Weak Instruments, *Journal of Economic Perspectives*

Parente, Paulo M.D.C. and J.M.C. Santos Silva, (2012). A Cautionary Note on Tests of Overidentifying Restrictions. *Economics Letters*, 115(2), 314-317.

Levitt, Steven D. (1997). Using Electoral Cycles in Policy Hiring to Estimate the Effect of Police on Crime, *American Economic Review*

Angrist, Joshua and Alan B. Krueger (1991). "Does Compulsory School Attendance Affect Schooling?" *Quarterly Journal of Economics*, 106, 979-1014.